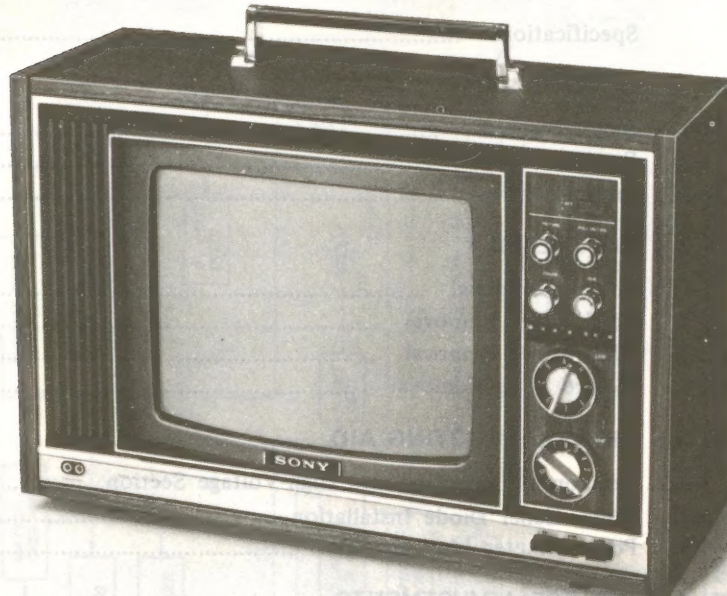


CVM-1225

US Model

Chassis No. SCC-29A-A



**TRINITRON®
COLOR MONITOR**

SPECIFICATIONS

TV-signal standards:	American TV standards (NTSC color)	Video signal input:	8-P connector; 1Vp-p, sync negative, 75 ohm unbalanced UHF connector (LINE IN); 1Vp-p, sync negative, 75 ohm unbalanced
Picture tube:	12" 90° deflection TRINITRON system	Video signal output:	8-P connector; 1Vp-p, sync negative, 75 ohm unbalanced UHF connector (TV OUT & MONITOR OUT); 1Vp-p, sync negative, 75 ohm unbalanced
Semiconductors:	60 transistors, 32 diodes, 3 thermistors, 1 posistor and 3 ICs.	Audio signal input:	8-P connector; 0dB, high impedance Minijack (LINE IN); 0dB, high impedance
Channel coverage:	VHF; ch. 2 ~ 13 UHF; ch. 14 ~ 83	Audio signal output:	8-P connector; -20dB, less than 1 k-ohm Minijack (TV OUT); 0dB, less than 1 k-ohm
Antenna system:	VHF; 300 ohms balanced: dipole antenna and external antenna UHF; 300 ohms balanced: loop antenna and external antenna	Power requirement:	AC 120V 60 Hz
IF circuit:	3 stages with 1 double tuned and 3 single tuned elements	Power consumption:	85W
Intermediate frequency:	Picture i-f carrier; 45.75 MHz Color sub-carrier; 42.17 MHz Sound i-f carrier; 41.25 MHz	Dimensions:	20 ³ / ₁₆ " (W) x 14 ¹ / ₁₆ " (H) x 15 ¹⁵ / ₁₆ " (D)
Sound system:	4.5 MHz intercarrier system Output power; 1.2W at 10% harmonic distortion Speaker; 3 ¹ / ₈ " x 4 ³ / ₄ " (8 cm x 12 cm), 8 ohms	Weight:	42 lb 12 oz
Video system:	Red, green and blue cathode drive system		



SONY®
SERVICE MANUAL

SECTION 1
OUTLINE

1-2. EXTERNAL VIEWS

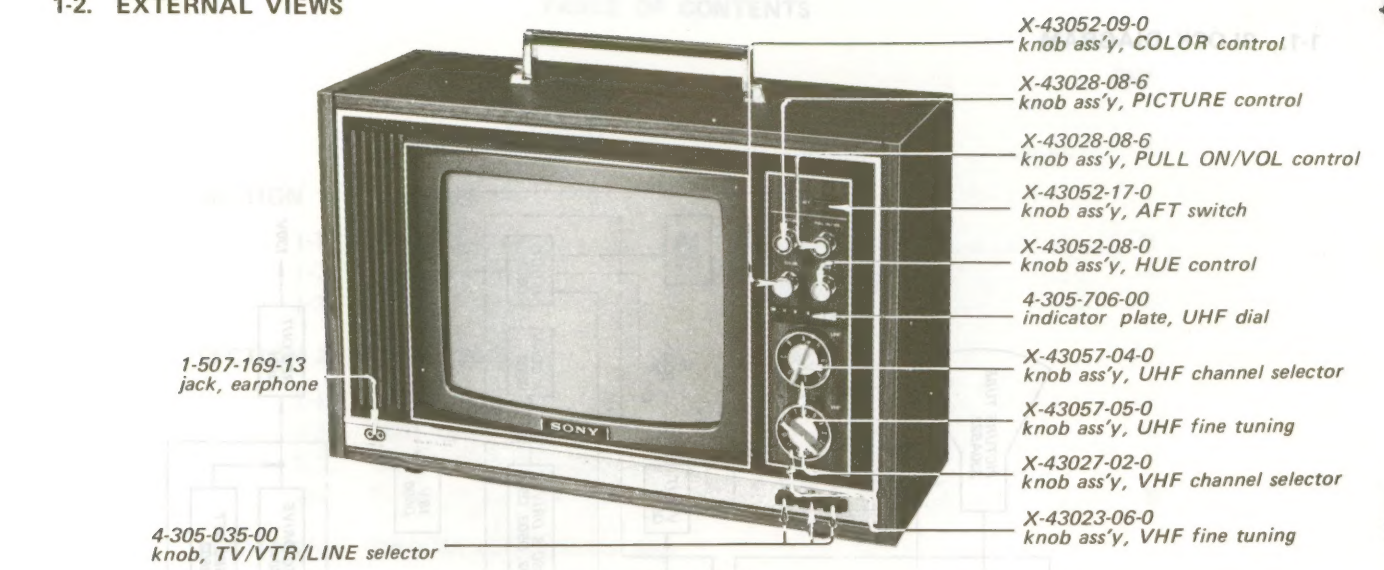


Fig. 1-2.

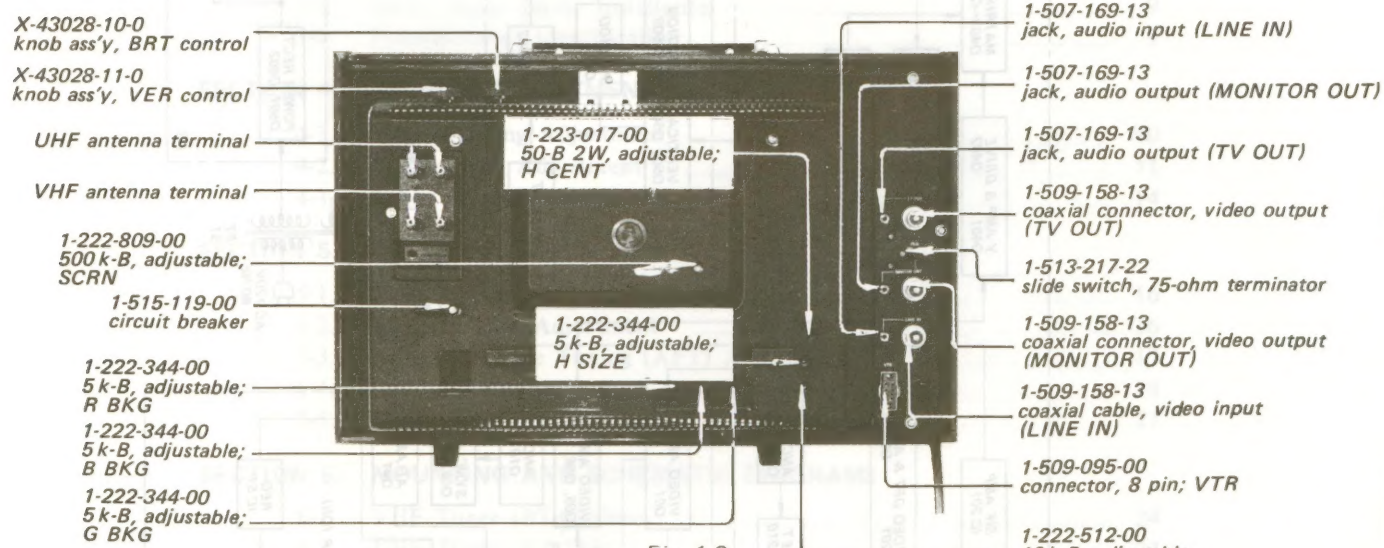


Fig. 1-3.

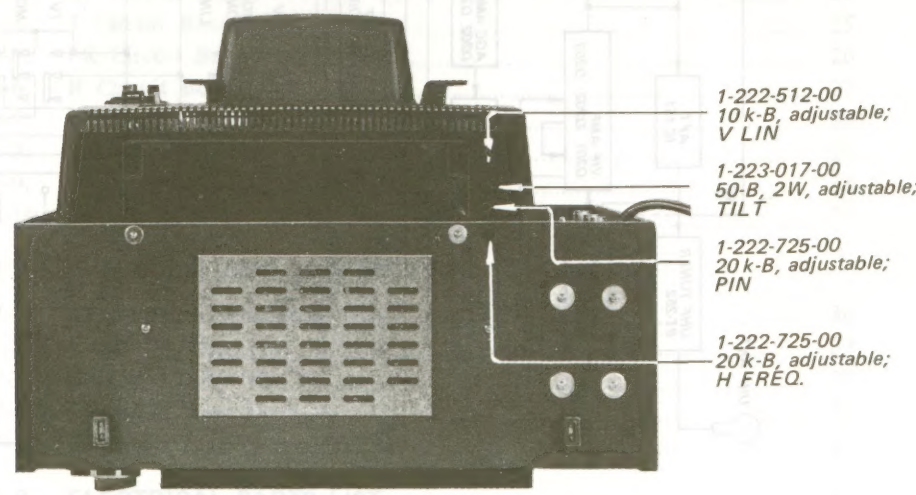


Fig. 1-4.

1-3. INTERNAL VIEWS

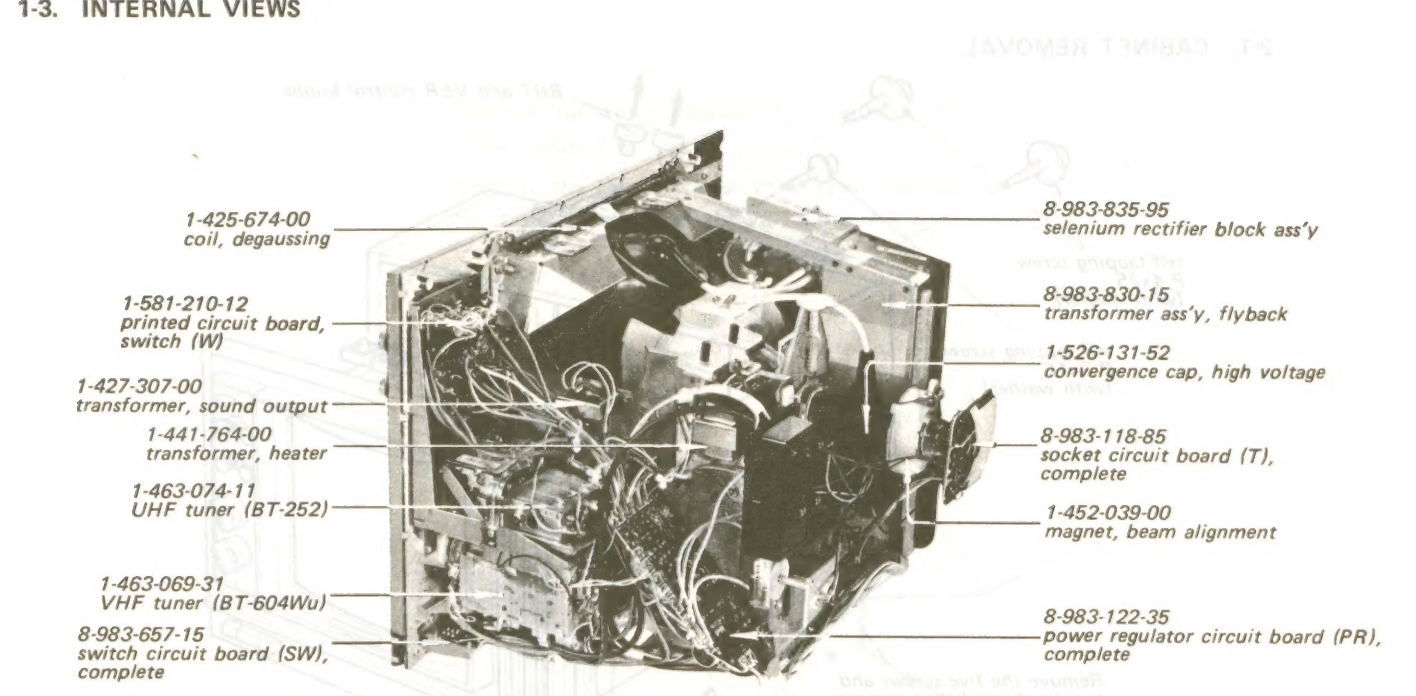


Fig. 1-5.

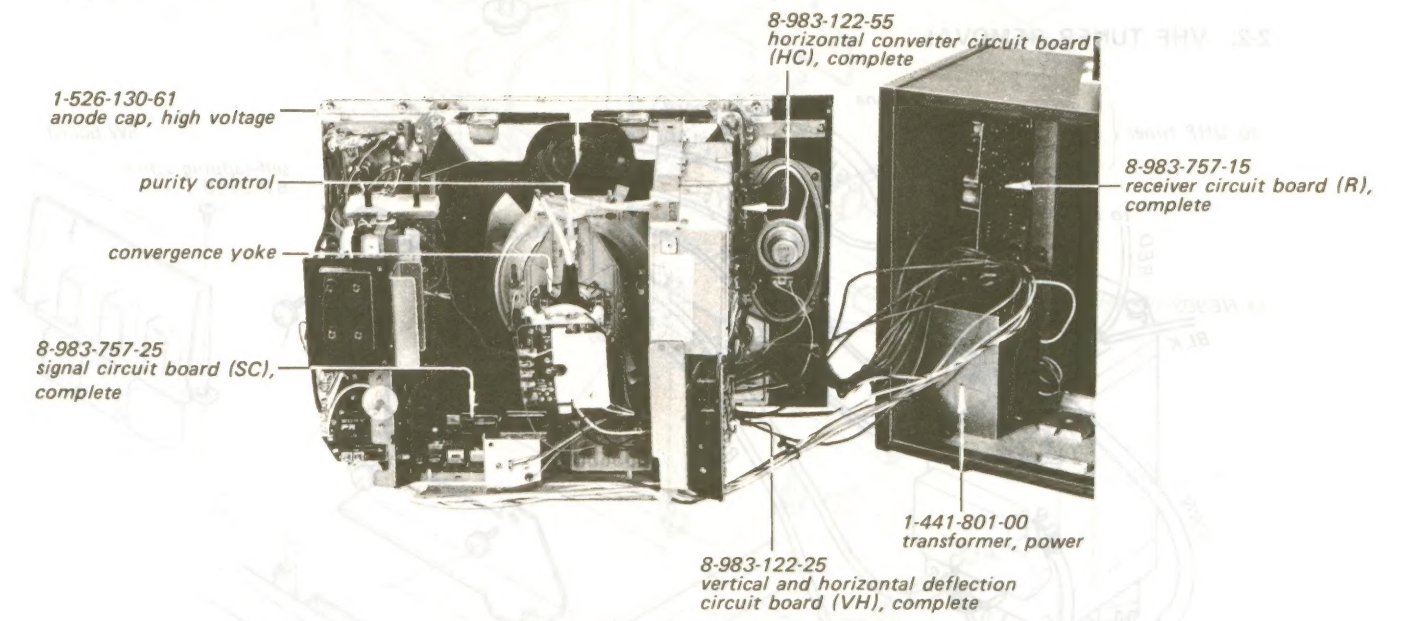
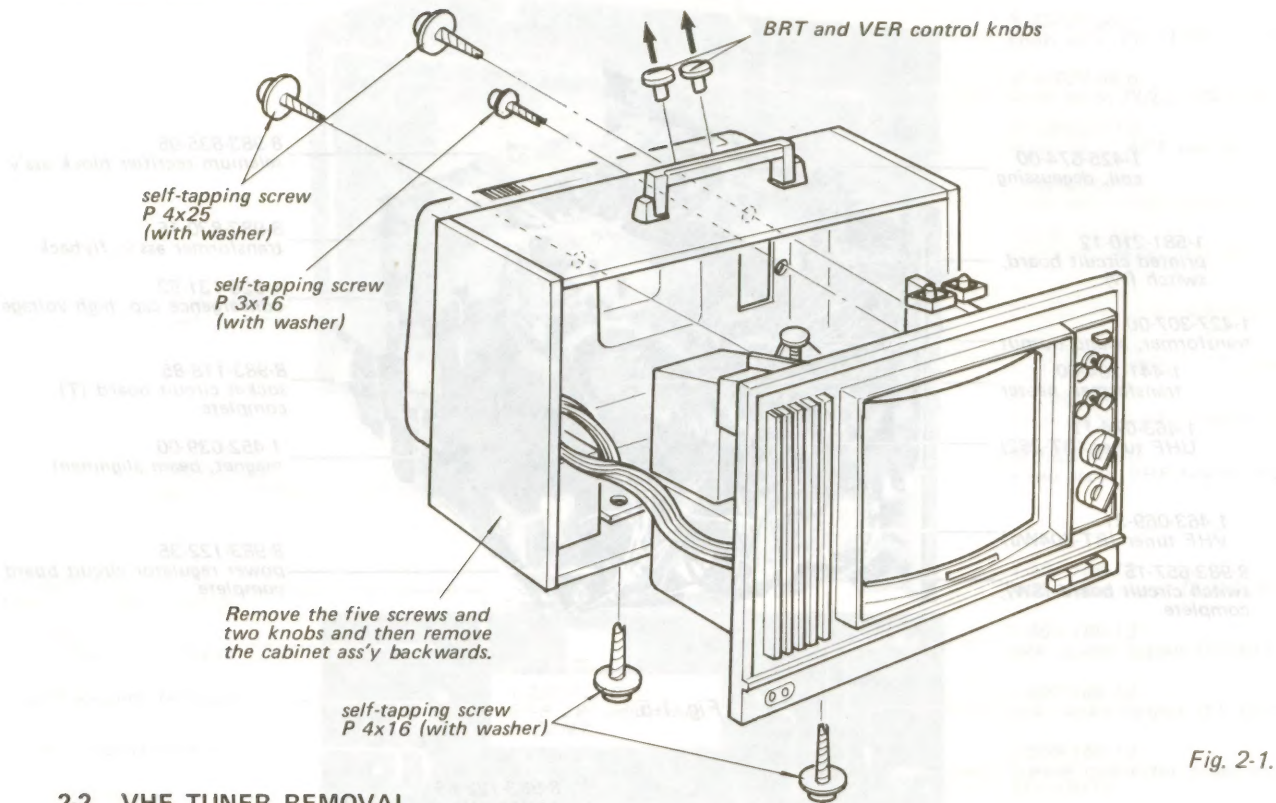


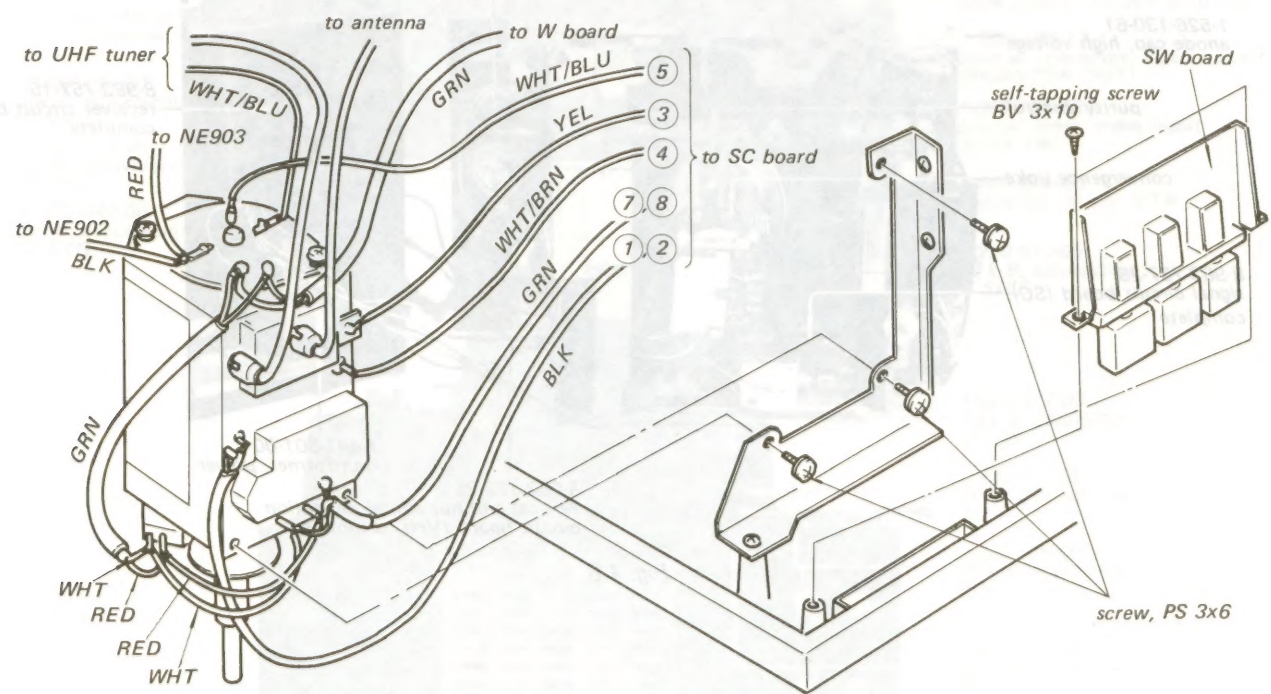
Fig. 1-6.

SECTION 2
DISASSEMBLY

2-1. CABINET REMOVAL



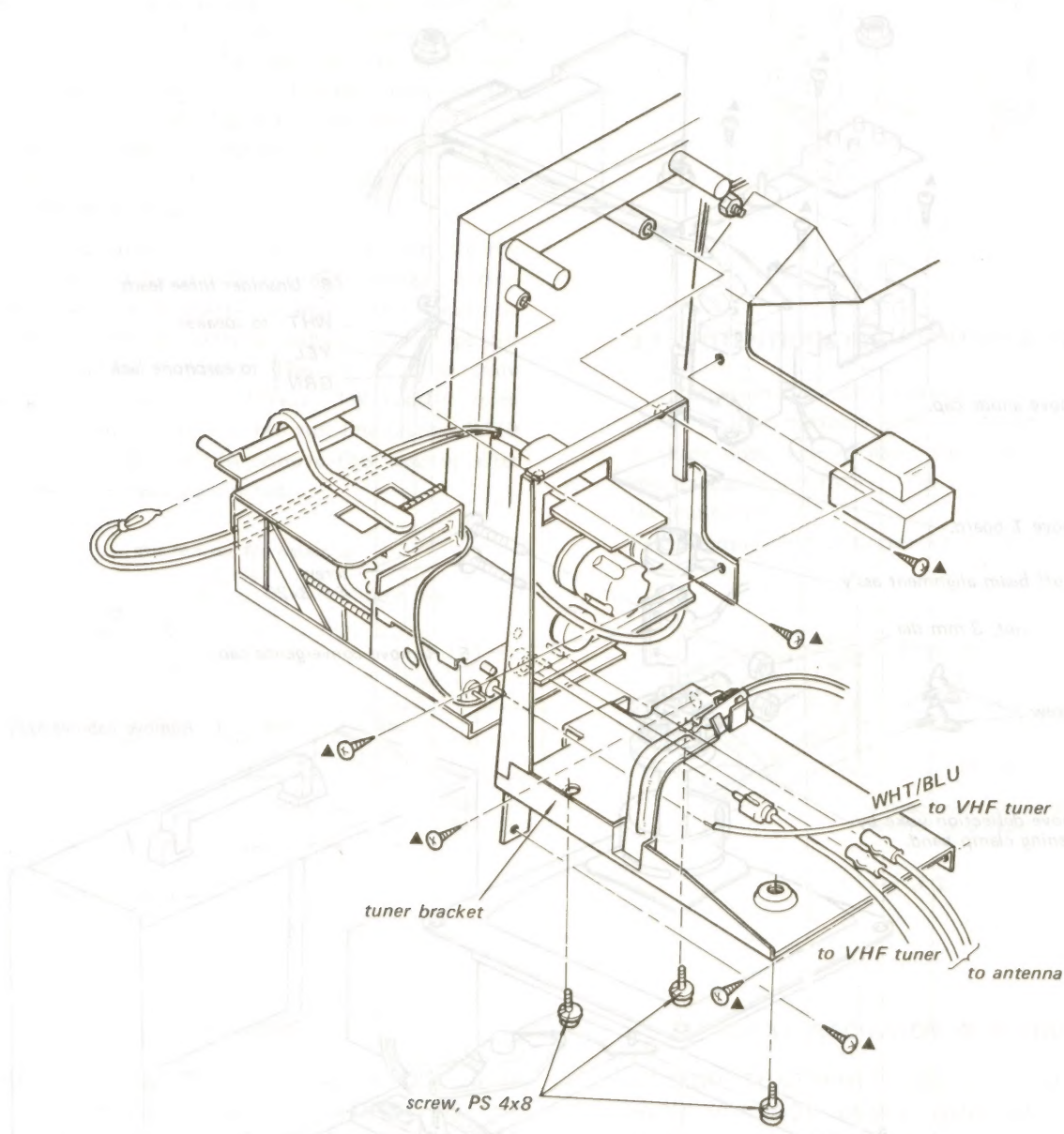
2-2. VHF TUNER REMOVAL



1. Remove the cabinet.
2. Remove the SW board as shown in Fig. 2-2.
3. Remove the VHF tuner by removing three screws (PS 3x6).

2-3. UHF TUNER REMOVAL

1. Remove the cabinet.
2. Remove the tuner bracket by removing the screws marked ▲.
3. Remove the three screws (PS 4x8) to pull out the tuner forwards as shown in Fig. 2-3.



Note: ▲: self-tapping screw, BV 3x8.

2-4. PICTURE TUBE REMOVAL

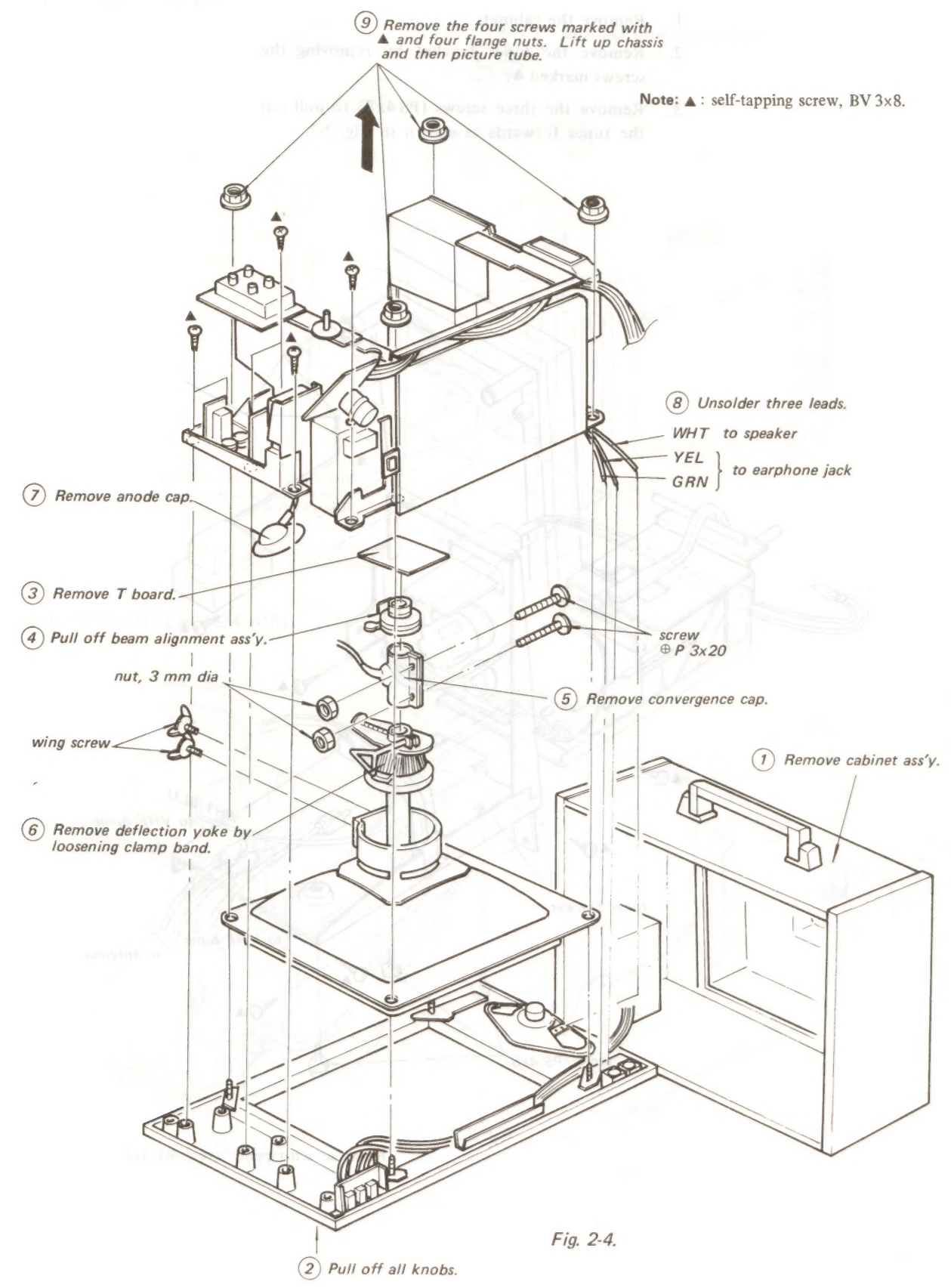


Fig. 2-4.

SECTION 3
TROUBLESHOOTING AID

3-1. HORIZONTAL DEFLECTION AND HIGH-VOLTAGE SECTION

The +18 volt line that supplies the horizontal oscillator is developed from rectified pulses obtained from a winding on the flyback transformer. In this way the horizontal oscillator supplies its own B+ in a closed-loop system. To start the horizontal oscillator, B+ is supplied momentarily from the +130 volt supply when power is switched on. This is accomplished by the RC network C513 and R519 that connects the +130 volt line to the +18 volt line. See Fig. 3-1. At turn on C513 charges to supply starting voltage for the horizontal oscillator. After C513 charges fully the two supplies are effectively isolated.

In the event of failure of any part of the horizontal oscillator-deflection-high-voltage section loop it will be necessary to supply the horizontal oscillator from an external supply of voltage for troubleshooting purposes. This can be done quite easily by connecting a 3.9kΩ, 3W resistor from the +130 volt line to the +18 volt line (across R519 and C513). Be sure to remove this resistor after repairs have been completed.

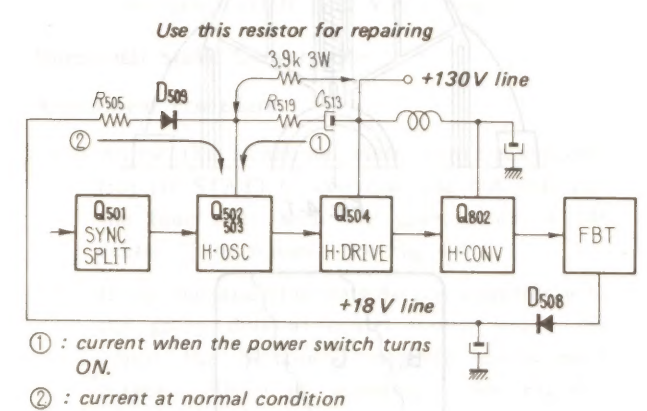


Fig. 3-1.

WARNING!!

THIS CHASSIS OPERATES WITH ONE SIDE OF THE POWER LINE CONNECTED TO THE CHASSIS. TO ELIMINATE SHOCK HAZARD AND PROTECT EQUIPMENT WHEN SERVICING THE SET WITH THE COVERS REMOVED, MAKE SURE THAT THE SET IS PLUGGED INTO A SUITABLY-RATED ISOLATION TRANSFORMER.

3-2. D603, ZENER DIODE INSTALLATION

In the event that D603 fails and must be replaced, bend the center lead as shown in Fig. 3-2. The lead then serves to help dissipate heat from the diode.

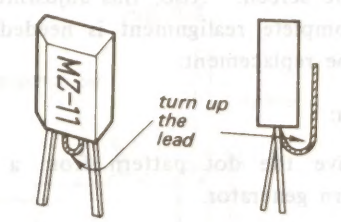
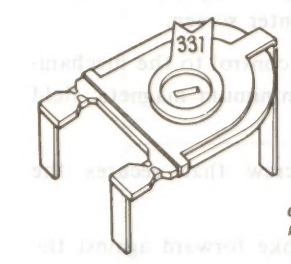


Fig. 3-2.

3-3. POTENTIOMETER IDENTIFICATION

Potentiometers are marked to show value in ohms on the movable arm as shown in Fig. 3-3. A three digit code is used, the first two numbers specify significant figure. The third number denotes the multiplier.



Example:
3 3 1
number exponent of 10
 $33 \times 10^1 = 330\Omega$
characteristic curve of adjustable resistor is B type

Fig. 3-3.

X-RAY RADIATION WARNING!!

BE SURE THAT PARTS REPLACEMENT IN THE HIGH VOLTAGE BLOCK AND ADJUSTMENTS MADE TO THE HIGH VOLTAGE CIRCUITS ARE CARRIED OUT PRECISELY IN ACCORDANCE WITH THE PROCEDURES GIVEN IN THIS MANUAL.

SECTION 4 SERVICE ADJUSTMENTS

4-1. BEAM LANDING ADJUSTMENTS

Beam landing adjustment is made to ensure correct landing of the three beams on their designated phosphor stripes. Incorrect beam landing at any point on the screen results in color contamination (a predominant hue) in those particular areas of the screen. Also, this adjustment is used when a complete realignment is needed following picture tube replacement.

Preparation:

1. Receive the dot pattern from a color-bar/pattern generator.
2. Set the horizontal frequency control VR-501 and vertical hold control VR-902 for correct sync.
3. Set the brightness control fully clockwise and the picture control fully counterclockwise.
4. Push in the AFT switch button.

Adjustment Procedure:

1. Face the screen due East or West, and degauss the entire screen area using a degaussing coil.
2. If misconvergence is found on the screen, adjust the horizontal static control (H-STAT) and the beam alignment magnet (BAM) for best convergence at center screen.
3. Set the purity magnet control to the mechanical center to obtain minimum magnetic field as shown in Fig. 4-1.
4. Loosen the clamp screw that secures the deflection yoke.
5. Slide the deflection yoke forward against the funnel of the picture tube.
6. Unsolder the red and blue leads on the T board. The screen should appear as shown in Fig. 4-2.
7. Adjust the purity magnet control to center the vertical green band on the screen as shown in Fig. 4-3.
8. Slide the deflection yoke back towards the tube base to obtain a uniform green over the entire screen.

9. Check red and blue rasters for uniformity and repeat Steps 7 and 8 if needed. Clamp the deflection yoke in place.
10. If slight mislanding is found, make touch-up adjustment with the purity magnet.
11. If mislanding is found at the corners, affix a small disk magnet using double-sided adhesive tape on the deflection yoke holder. After installing disk magnets, degauss the entire screen area and make sure that mislanding does not appear on the screen.
12. Check for misconvergence. If misconvergence appears on the screen, adjust the horizontal and vertical static convergence adjustment.

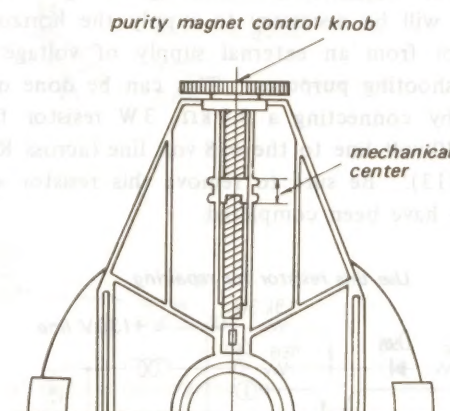


Fig. 4-1.

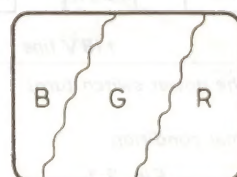


Fig. 4-2.



Fig. 4-3.

4-2. CONVERGENCE ADJUSTMENT

Static Convergence Adjustment

Preparation:

1. Receive the dot pattern from the color-bar/pattern generator.
2. Set the brightness and picture controls for optimum picture quality.
3. Push in the AFT switch button.
4. The landing and white balance adjustment should be completed before starting the convergence adjustment.
5. The following adjustments should also be completed:
 - a. Focus adjustment. (See page 22)
 - b. Horizontal size adjustment. (See page 22)
 - c. Vertical size and linearity adjustment. (See page 22)
6. Check for best convergence on the screen by adjusting the horizontal static control (H STAT). If misconvergence is found perform the following horizontal static adjustment.
7. Pull off the horizontal and vertical magnetic convergence (HMC and VMC) magnet.

Horizontal Static Convergence

Adjustment Procedure:

1. Adjust the horizontal static convergence control (H STAT) to converge the red dots and the blue dots with the green dots at the center of the screen. See Fig. 4-4.
2. If the red and blue dots do not converge with the green dots at center screen install and adjust the horizontal magnetic convergence magnet (HMC) as necessary. See Fig. 4-5, Fig. 4-6 and Fig. 4-7.

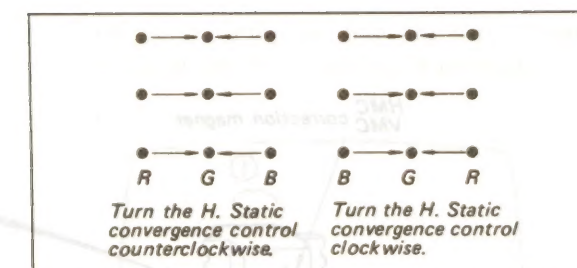


Fig. 4-4.

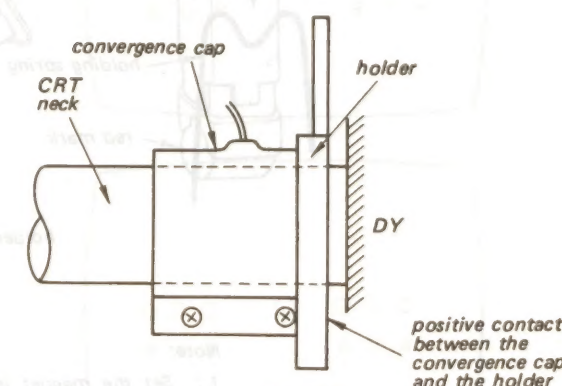


Fig. 4-5.

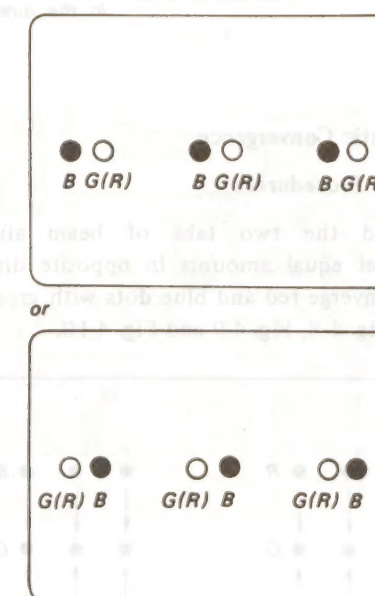


Fig. 4-6.

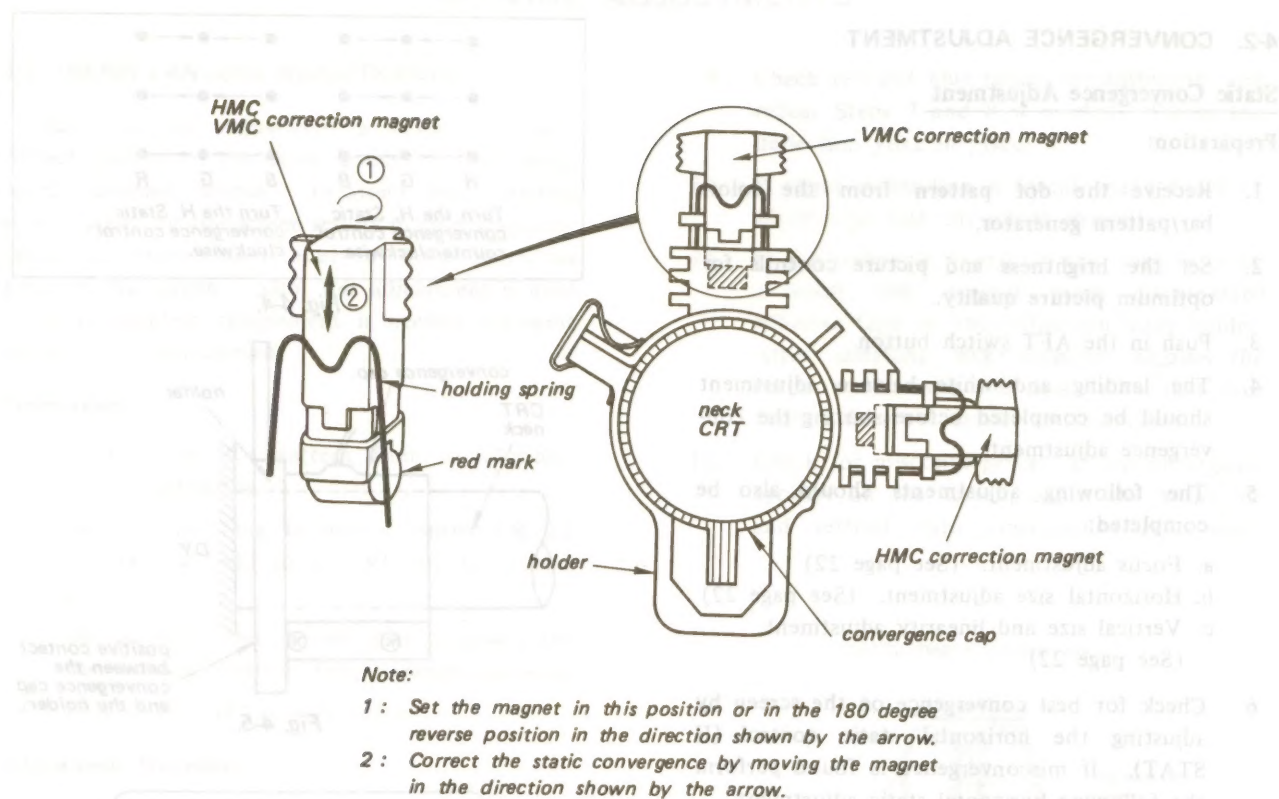


Fig. 4-7.

Vertical Static Convergence

Adjustment Procedure:

1. Spread the two tabs of beam alignment magnet equal amounts in opposite directions to converge red and blue dots with green dots. See Fig. 4-8, Fig. 4-9 and Fig. 4-10.

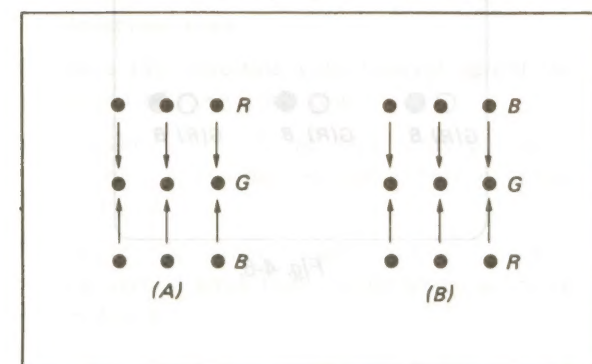


Fig. 4-8.

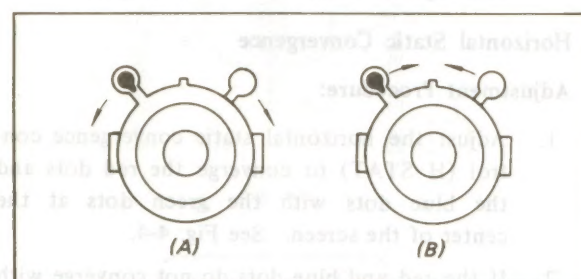


Fig. 4-9.

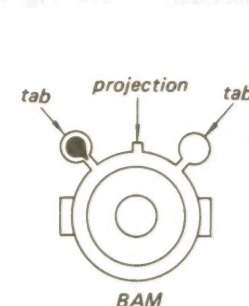


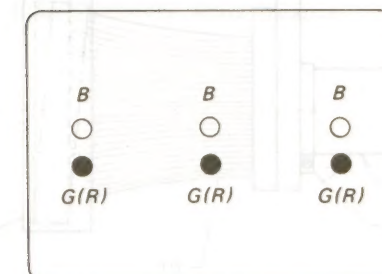
Fig. 4-10.

Note:

1. The two projections are mated with the two tabs. (It means convergence correcting amount turns to zero.)
2. If the two tabs are not spread in equal amounts opposite direction, dynamic convergence adjustment should be done again.

2. If blue and red dots do not converge with the green dots at center screen install and adjust the vertical convergence magnet (VMC) as necessary. See Fig. 4-11.

Note: 1. If it is necessary to correct convergence using the HMC and VMC magnets, mislanding may result. Therefore, repeat the beam-landing adjustment.
 2. In most cases installation of the HMC and VMC magnets will not be needed. Therefore, most units have no HMC and VMC holders. If the holder is required when installing a replacement picture tube, install the following parts.
 HMC Magnet No. 1-452-058
 VMC Magnet No. 1-452-038
 Holder Ass'y No. 4-304-474



or

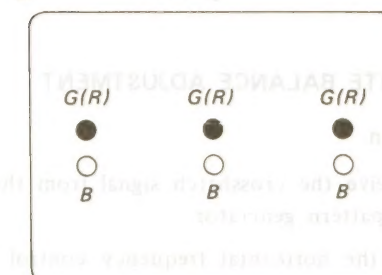


Fig. 4-11.

Dynamic Convergence Adjustment

Adjustment Procedure:

1. Adjust the TILT control (VR502) to obtain best horizontal convergence at both sides of screen. If correct convergence cannot be obtained, turn the TILT control to display the dot pattern shown in Fig. 4-12.
2. Connect the lead from L502 to each of the connecting points on the VH board. Select the point that yields best convergence. See Fig. 4-13. It will probably be necessary to reset the horizontal static convergence control

(H STAT) after the lead has been changed. Readjust the TILT control, if necessary.

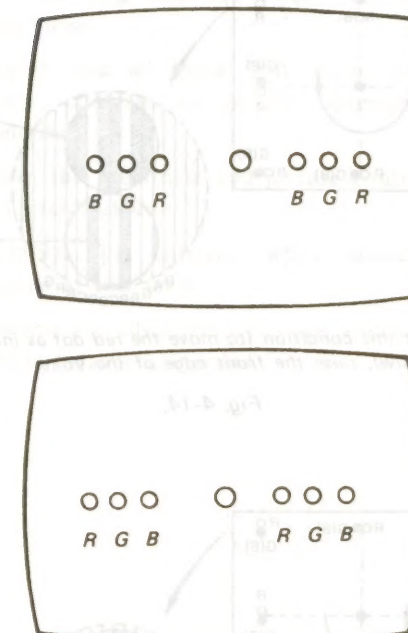


Fig. 4-12.

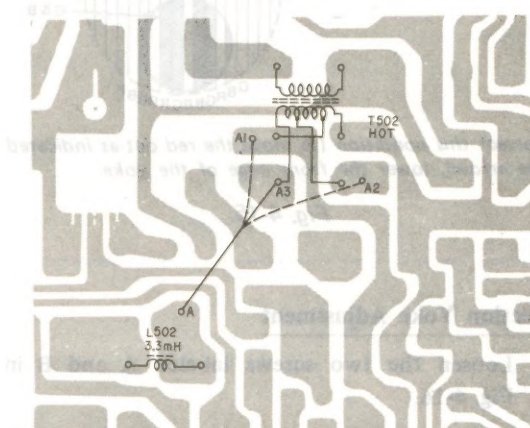


Fig. 4-13.

Screen-edge Convergence Adjustment

Adjustment Procedure:

If the conditions shown in Figs. 4-14 and 4-15 are observed, raise or lower the front edge of the deflection yoke to obtain the best convergence at the screen edges.

Note: Confirm that no mislanding appears. If mislanding is found repeat the landing adjustment procedure.

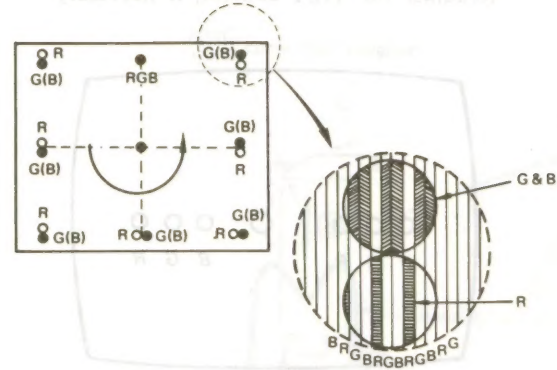


Fig. 4-14.

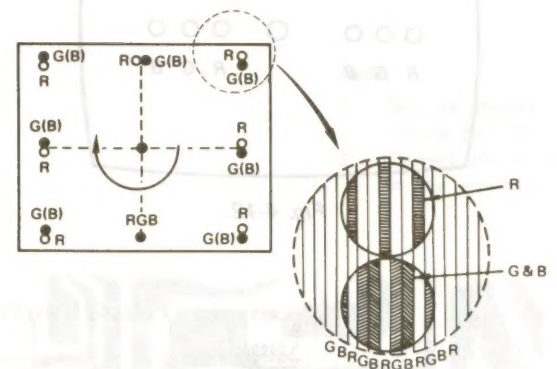


Fig. 4-15.

Deflection Yoke Adjustment

1. Loosen the two screws labeled A and B in Fig. 4-16.
2. Loosen the clamp band labeled C in Fig. 4-17.
3. Raise or lower the front edge of the deflection yoke while taking care not to move the yoke forward or backward.
4. Secure the yoke in position by tightening the screws labeled A and B in Fig. 4-16. Tighten the clamp band.

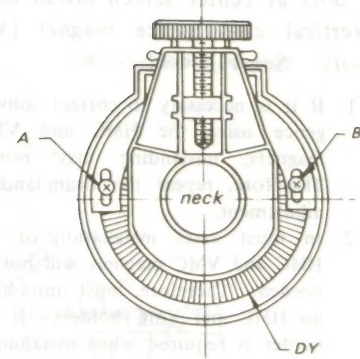


Fig. 4-16.

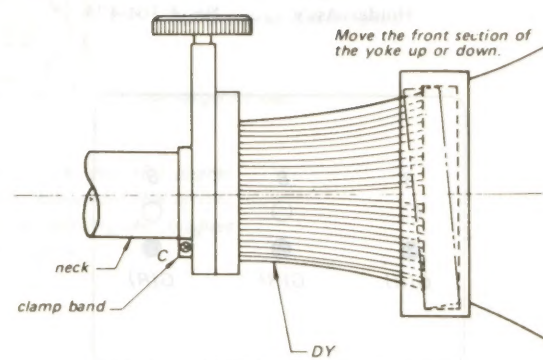


Fig. 4-17.

4-3. WHITE BALANCE ADJUSTMENT

Preparation:

1. Receive the crosshatch signal from the color-bar/pattern generator.
2. Set the horizontal frequency control VR501 and vertical hold control VR902 for correct sync.

Low-Level White Balance Adjustment

Adjustment Procedure:

1. Turn the brightness control and picture control fully counterclockwise.
2. Turn the screen (SCRN) control VR701 on the T board to obtain a dark screen (fully counterclockwise).

3. Set all three (red, green and blue) background controls (VR404, VR406 and VR402) to mid-range.
4. Turn all three (red, green and blue) drive controls (VR403, VR405 and VR401) to fully clockwise (maximum drive).
5. Turn the screen control clockwise slowly and note the hue (red, green or blue) that becomes faintly visible first.
6. Adjust the background controls for other two colors to obtain optimum white balance (neutral gray).
7. Turn the brightness and picture controls clockwise about 60 degrees.
8. Confirm that optimum white balance is obtained, and if necessary, readjust the background controls that were adjusted in Step 6 to obtain optimum white balance.

High Level White Balance Adjustment

Adjustment Procedure:

1. Set the brightness and picture controls fully clockwise.
2. Adjust the all three (red, green and blue) drive controls to obtain optimum white balance.
3. Turn the brightness and picture controls fully counterclockwise.
4. Confirm that optimum white balance is obtained at low level.
5. Repeat the adjustment for low and high level white balance as needed.

SECTION 5
CIRCUIT ADJUSTMENTS

5-1. AGC ADJUSTMENT

ITEM	PREPARATION & REMARKS	ADJUST	INDICATION
Detector output level	1. Connect a scope to the emitter of Q207. 2. Receive a strong off-the-air signal (55 ~ 75 dB).	VR203 (VIF AGC)	2.5 ~ 2.7V from 0V dc level to sync tip. See Fig. 5-1.
Tuner AGC	1. Receive relatively weak off-the-air signal.	VR201	1. Minimum noise (snow) in picture. 2. Receive strong off-the-air signal. 3. Check for crossmodulation and overload. Reset VR201, slightly, if needed.

5-2. 4.5 MHz TRAP ADJUSTMENT

ITEM	PREPARATION & REMARKS	ADJUST	INDICATION
4.5 MHz trap	1. Receive off-the-air signal. 2. Connect scope to emitter of Q207. 3. Turn fine tuning knob clockwise (AFT OFF) to produce sound beat on screen.	T207	Minimum 4.5 MHz beat.

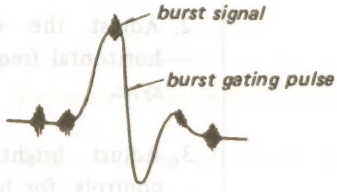



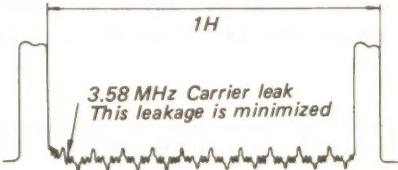
Fig. 5-1.

5-3. AUTOMATIC FINE TUNING (AFT) ADJUSTMENT

Field Service Method			
ITEM	PREPARATION & REMARKS	ADJUST	INDICATION
AFT adjustment	1. Receive an off-the-air signal with good signal-to-noise ratio. 2. Adjust the vertical hold and horizontal frequency controls for sync. 3. Adjust brightness and picture controls, for best picture. 4. Push the AFT button for manual operation. 5. Push the fine tuning knob in and then turn it clockwise to obtain 920 kHz beat on the screen. 6. Set the fine tuning knob to the point at which 920 kHz beat just disappears by turning the fine tuning knob counterclockwise slowly. 7. Push the AFT button for automatic operation.	L155 (AFT-T4)	1. Set AFT-T4 to the point at which 920 kHz beat just disappears.

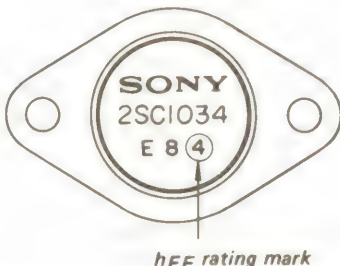
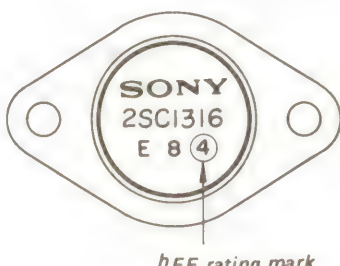
5.4. COLOR CIRCUIT ADJUSTMENT

ITEM	PREPARATION & REMARKS	ADJUST	INDICATION
Burst amplifier adjustment	<ol style="list-style-type: none">1. Receive the color-bar signal from the color-bar generator.2. Connect a scope to the base of burst amplifier Q306 and check that the burst signal rides around atop the burst gate pulse as shown in Fig. 5-2.3. Short the both sides of hue control VR905 with short jumper wire.4. Connect a dc bias box across capacitor C309, negative to ground.5. Connect a scope to the secondary of the BAT.6. Adjust the dc bias box to obtain less than 10V(p-p) waveform on the scope.	BAT (T304)	<ol style="list-style-type: none">1. Adjust the core of BAT to obtain maximum burst signal on the scope.  <p>Fig. 5-2.</p>
ACC adjustment	<ol style="list-style-type: none">1. Receive the color-bar signal from the color-bar generator.2. Connect a scope to emitter of Q207.3. Adjust the color-bar generator to produce a burst signal of 0.2V(p-p) on the scope.4. Transfer the scope probe to the secondary of 1st bandpass transformer BPT-1.	VR301 (ACC)	<ol style="list-style-type: none">1. Adjust ACC control (VR301) to produce a color burst signal of 0.5 V(p-p).
3.58 MHz oscillator adjustment	<ol style="list-style-type: none">1. Receive the color-bar signal from the color-bar generator.2. Set the hue control VR905 to midrange.3. Short the secondary of BAT to ground with short jumper.	COT (T305)	<ol style="list-style-type: none">1. Adjust the core of COT to synchronize the color in the display and for minimum color beat in the picture.

ITEM	PREPARATION & REMARKS	ADJUST	INDICATION
Hue control range check (factory service method)	<ol style="list-style-type: none">1. Receive the color-bar signal from the color-bar generator.2. Set the hue control to midrange.3. Turn the picture control fully clockwise, and then turn it counterclockwise about 90 degrees.4. Unlock the AFT switch for manual operation.	VR302	<ol style="list-style-type: none">1. Check that sixth bar, counting to the right from the sync signal, is maximum. See Fig. 5-3.  <p>Fig. 5-3.</p> <ol style="list-style-type: none">2. If blue waveform is not correct, adjust the front panel hue control slightly. <p>Note: Fixed components are used to adjust the phase of the red and green waveforms. Therefore, correct red and green waveforms should coincide with a correct blue waveform. If not, check the fixed components.</p> <ol style="list-style-type: none">3. If correct blue waveform cannot be obtained by adjusting the hue control, adjust the core of BAT (hue control at midrange).4. Check that correct waveform is obtained when pushing in the AFT switch. If it is not, readjust the sub hue control VR302.
3.58 MHz trap coil adjustment	<ol style="list-style-type: none">1. Receive the color-bar signal from the color-bar generator.2. Turn the COLOR control fully counterclockwise and the PICTURE control fully clockwise.3. Connect a scope to emitter of Q402 (Y DRIVE).	L405 (3.58 MHz trap)	<ol style="list-style-type: none">1. Adjust the trap coil L405 to minimize 3.58 MHz component on the waveform shown in Fig. 5-4.  <p>Fig. 5-4.</p>

ITEM	PREPARATION & REMARKS	ADJUST	INDICATION
Hue control range check (field service method)	<ol style="list-style-type: none">1. Receive the color-bar signal from the color-bar generator.2. Set the hue control to midrange.3. Set the brightness, picture and color controls for best picture.4. Pull off the pin-plugs of the red and green leads on the T board to display a blue raster.		<ol style="list-style-type: none">1. Check that third and ninth bars have same brightness as the spaces between the bars.2. If not, adjust the cores of BAT slightly. <p>Note: Fixed components are used to adjust the phase of the red and green waveforms. Therefore, correct red and green should be coincided with a correct blue phase. If not, check the fixed components.</p>

5-5. DEFLECTION CIRCUIT ADJUSTMENT

ITEM	PREPARATION & REMARKS	ADJUST	INDICATION																		
130V line adjustment	<ol style="list-style-type: none">1. Receive an off-the-air signal.2. Set the brightness and picture controls for optimum picture.3. Confirm that ac power is 120V.4. Connect a VOM to terminal 13 on the PR board.	VR601	<ol style="list-style-type: none">1. Adjust VR601 to obtain 130V.																		
Horizontal frequency adjustment	<ol style="list-style-type: none">1. Receive an off-the-air signal.2. Short the base of sync splitter Q501 to ground with a short jumper.3. Set the picture and vertical hold controls for optimum picture.4. Unlock the AFT switch for manual operation.	VR501	<ol style="list-style-type: none">1. Turn VR501 to obtain a single upright picture that "floats" from side to side or note the two settings that produce equal numbers of slanting bars and set VR501 midway between these settings.																		
Horizontal output and horizontal converter drive adjustment	<ol style="list-style-type: none">5. Adjust the fine tuning knob to obtain optimum picture. <div><p>hFE rating mark</p><p>hFE rating mark</p></div>	R803 R804	<p>If a horizontal output transistor has been replaced, change R803 according to the h_{FE} rating of transistor as shown in the table below.</p> <table><tr><th>Q801 h_{FE} rating</th><th>R803</th></tr><tr><td>2SC1034-3</td><td>2.7</td></tr><tr><td>-4</td><td>5.6</td></tr><tr><td>-5</td><td>5.6</td></tr></table> <p>If a horizontal converter transistor has been replaced, change R804 according to the h_{FE} rating of transistor as shown in the table below.</p> <table><tr><th>Q802 h_{FE} rating</th><th>R804</th></tr><tr><td>2SC1316-2</td><td>15</td></tr><tr><td>-3</td><td>22</td></tr><tr><td>-4</td><td>27</td></tr><tr><td>-5</td><td>33</td></tr></table>	Q801 h_{FE} rating	R803	2SC1034-3	2.7	-4	5.6	-5	5.6	Q802 h_{FE} rating	R804	2SC1316-2	15	-3	22	-4	27	-5	33
Q801 h_{FE} rating	R803																				
2SC1034-3	2.7																				
-4	5.6																				
-5	5.6																				
Q802 h_{FE} rating	R804																				
2SC1316-2	15																				
-3	22																				
-4	27																				
-5	33																				

ITEM	PREPARATION & REMARKS	ADJUST	INDICATION
Horizontal centering adjustment	<ol style="list-style-type: none"> 1. Receive a test pattern signal. 2. Adjust vertical hold and horizontal frequency controls for correct sync. 3. Set the brightness and picture controls, for optimum picture. 	VR503	<ol style="list-style-type: none"> 1. Adjust the horizontal centering control VR503 to center the pattern at the center of screen. 2. If correct centering cannot be obtained, readjust VR503 after changing the jumper wire on the VH board from B1 point to B2 point as shown in Fig. 5-5.
Horizontal size adjustment		VR505	<ol style="list-style-type: none"> 1. Adjust VR505 until outside circle of test pattern is in contact with the edge of picture tube.
Focus adjustment	<ol style="list-style-type: none"> 1. Receive an off-the-air signal. 2. Set the brightness and picture controls for optimum picture. 		<ol style="list-style-type: none"> 1. Try the focus lead (white) at each of the connecting points on the T board. See Fig. 5-6. 2. Connect permanently at the point that gives best focus.
Vertical bias adjustment	<ol style="list-style-type: none"> 1. Receive an off-the-air signal. 2. Connect a VOM to the emitter of Q509. 	VR508	<ol style="list-style-type: none"> 1. Adjust VR508 to obtain 0.6V.
Vertical centering adjustment			<ol style="list-style-type: none"> 1. Select the connecting point of blue lead to locate the picture at the center of the screen. See Fig. 5-7.
Vertical size and linearity adjustment		VR506 VR507	<ol style="list-style-type: none"> 1. Adjust vertical size VR506 and linearity VR507 for optimum size and linearity.
Pincushion correction adjustment	<ol style="list-style-type: none"> 1. Receive a crosshatch signal from color-bar/pattern generator. 2. Adjust the brightness control until the crosshatch becomes faintly visible on the screen. 3. Set the picture control fully counterclockwise (minimum position). 	VR504	<ol style="list-style-type: none"> 1. Adjust the pincushion correction VR504 for best pincushion correction at the sides of the picture. 2. Readjust vertical and horizontal size controls after adjusting VR504.

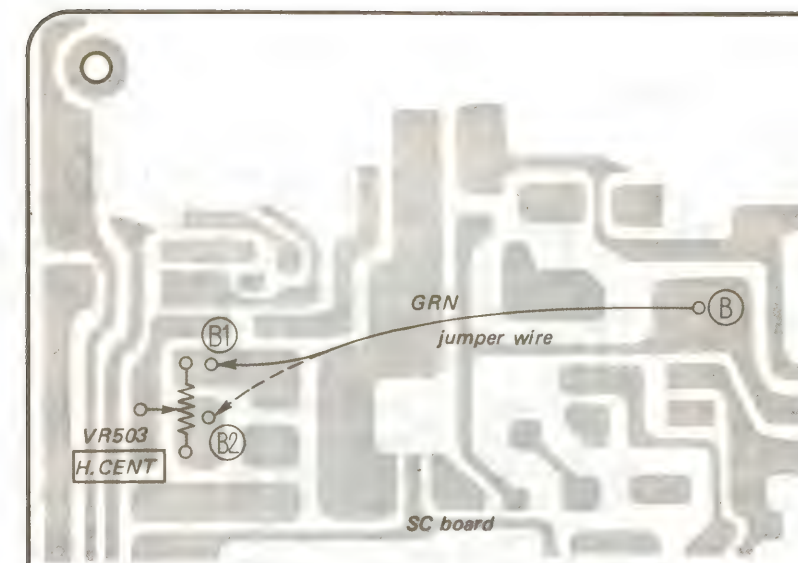


Fig. 5-5.

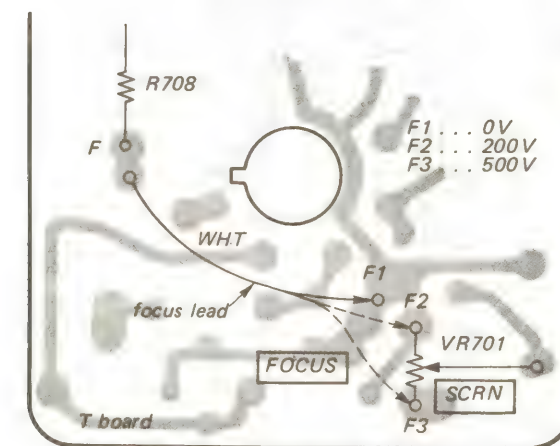


Fig. 5-6.

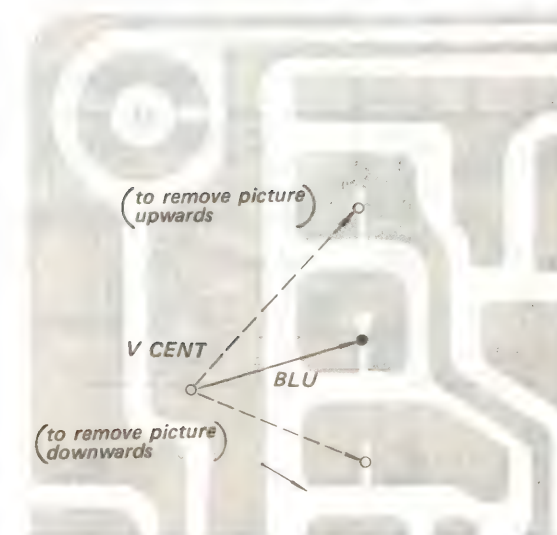
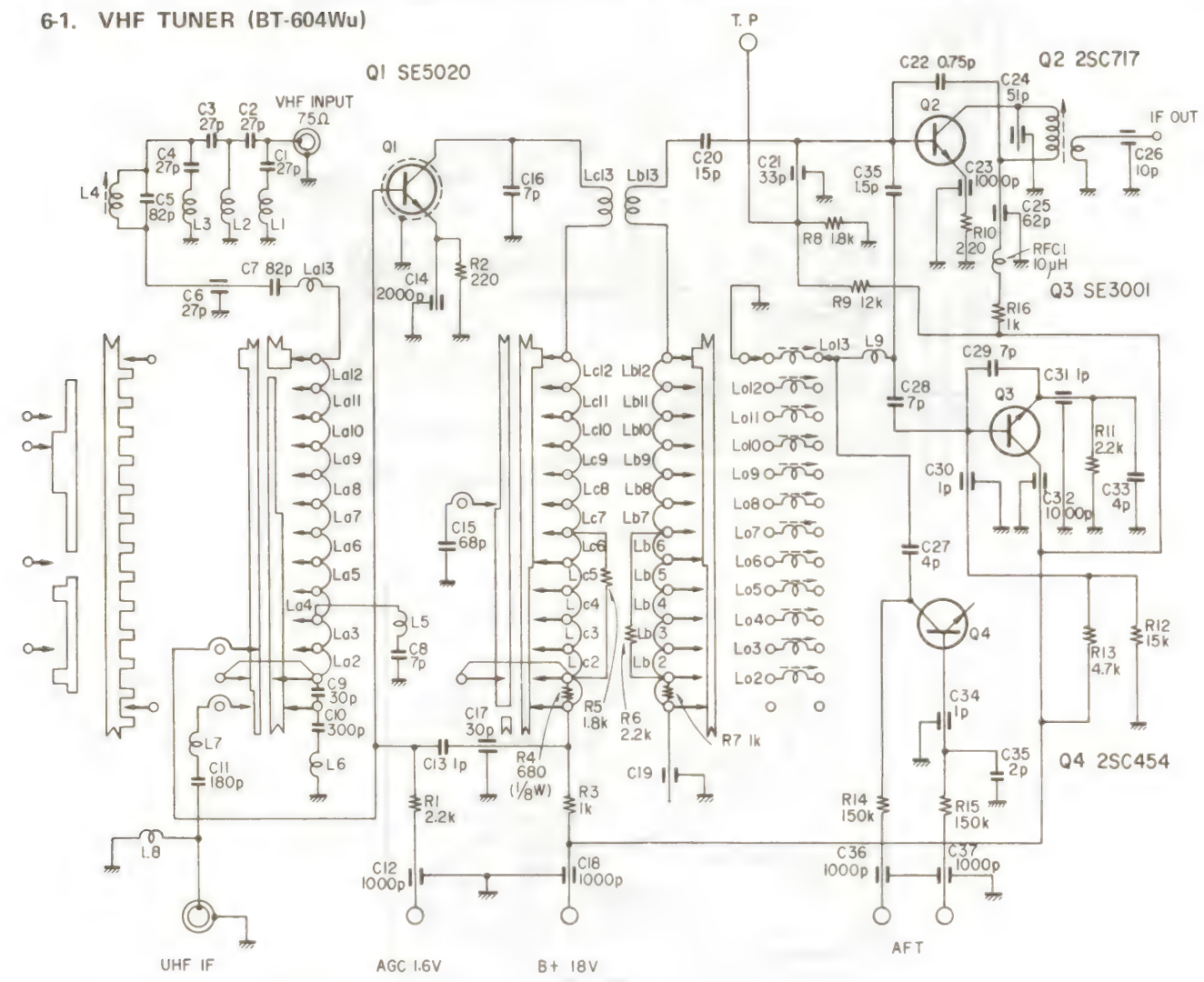


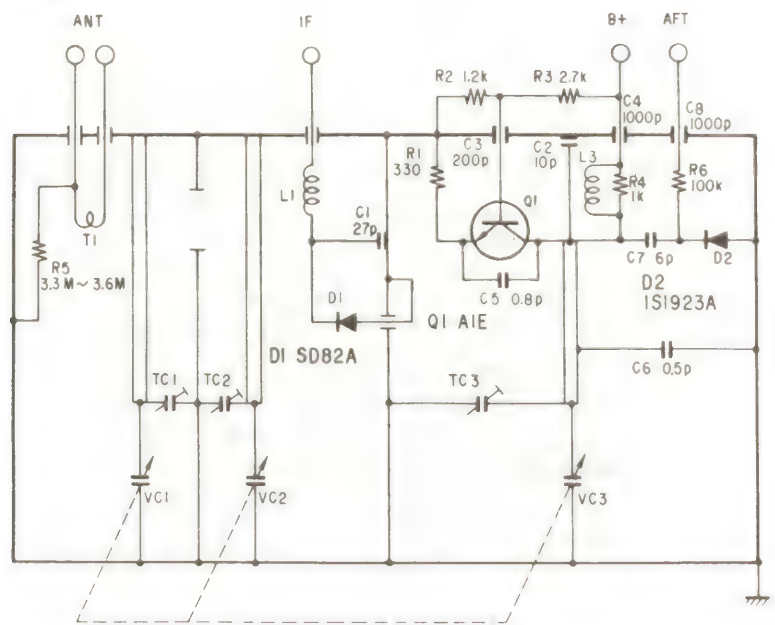
Fig. 5-7.

SECTION 6
MOUNTING AND SCHEMATIC DIAGRAMS

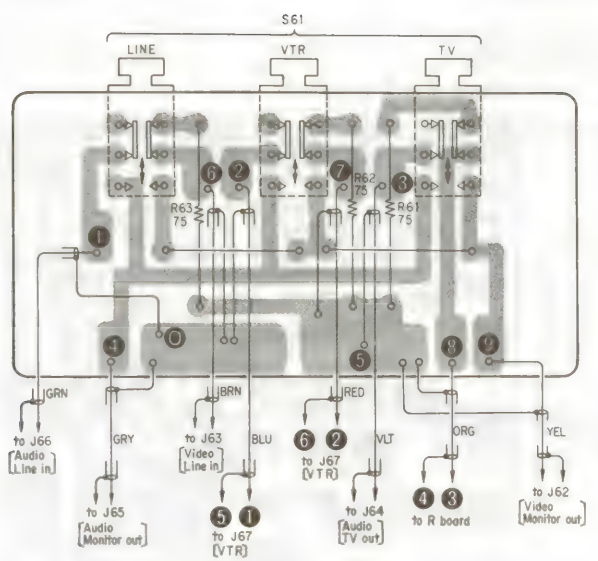
6-1. VHF TUNER (BT-604Wu)



6-2. UHF TUNER (BT-252)

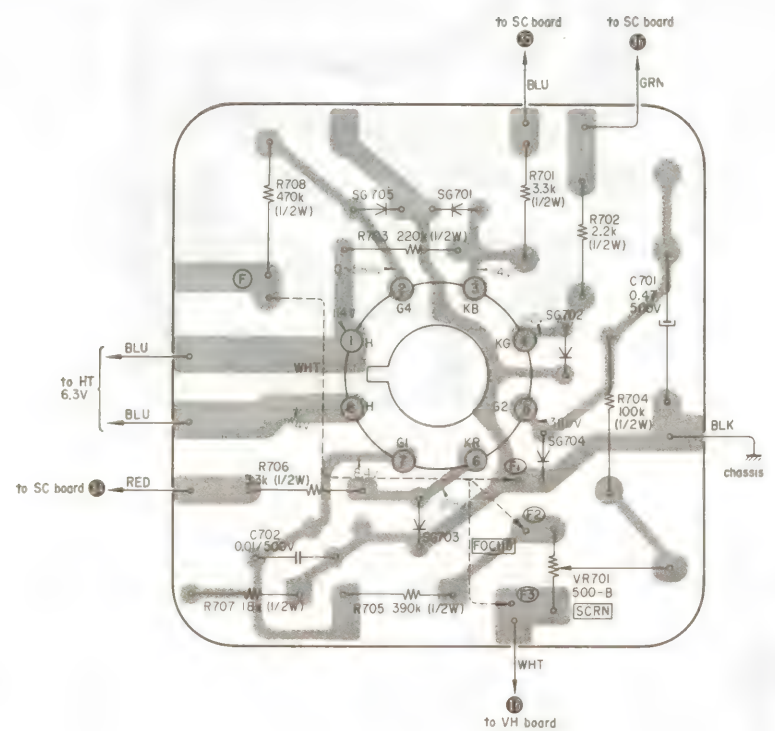


6-3. SW CIRCUIT BOARD



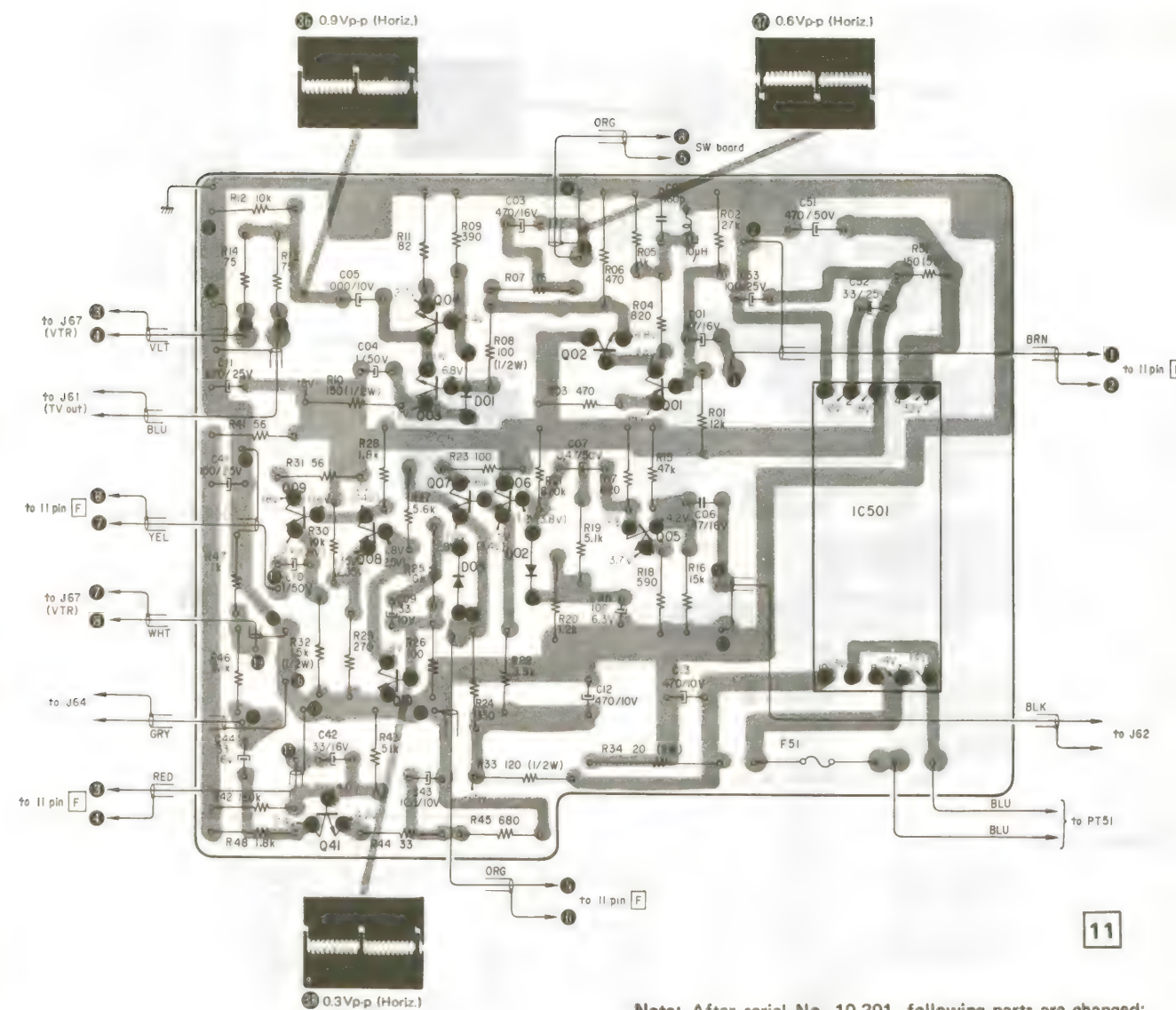
11

6-4. T CIRCUIT BOARD



52

6-6. R CIRCUIT BOARD



Note: After serial No. 10,301, following parts are changed;
R28: 4.7 k R30: 2.7 k R32: 820

Q01: 2SA678

Q02 ~ 04: 2SC1124

Q05 ~ 10, 41: 2SC634A

D01: 1S334

D02: 1T40
D03: 1T22A

Q601: 2SC1124

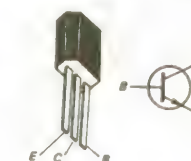
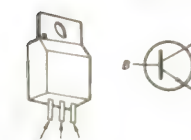
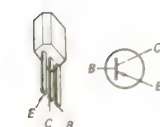
Q602: 2SC926A

Q903: 2SC867

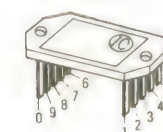
D601: CD-4

D602: CDB-4

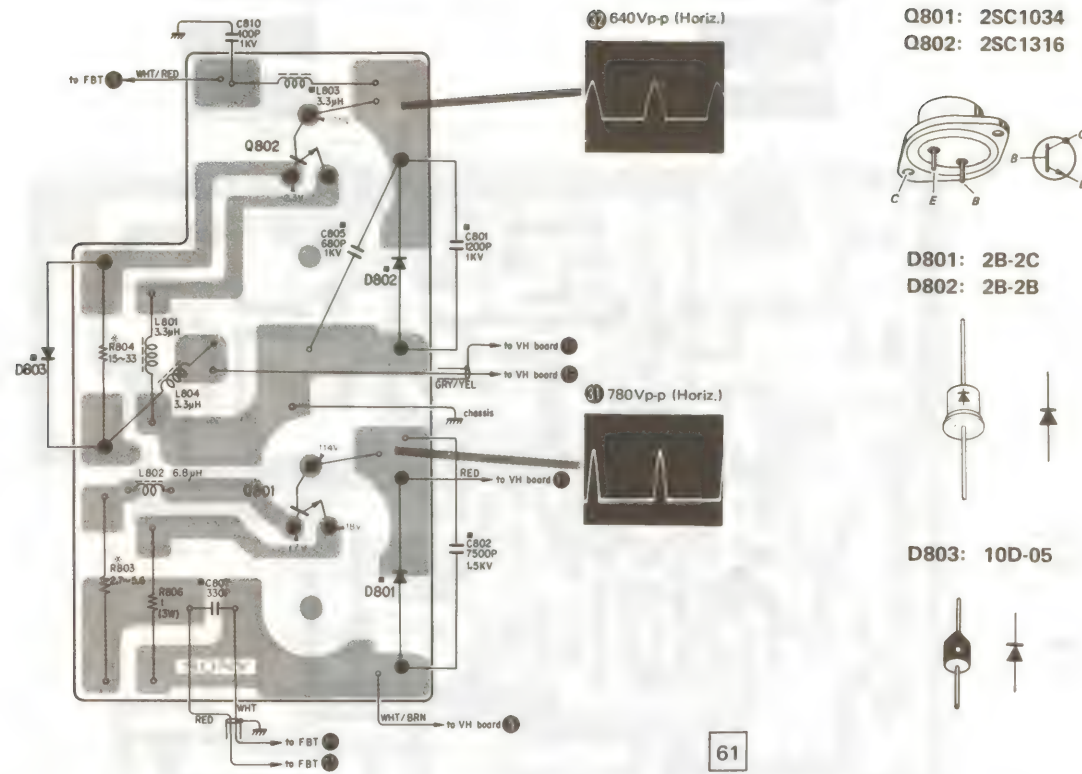
D603: MZ-11



IC501 STK502

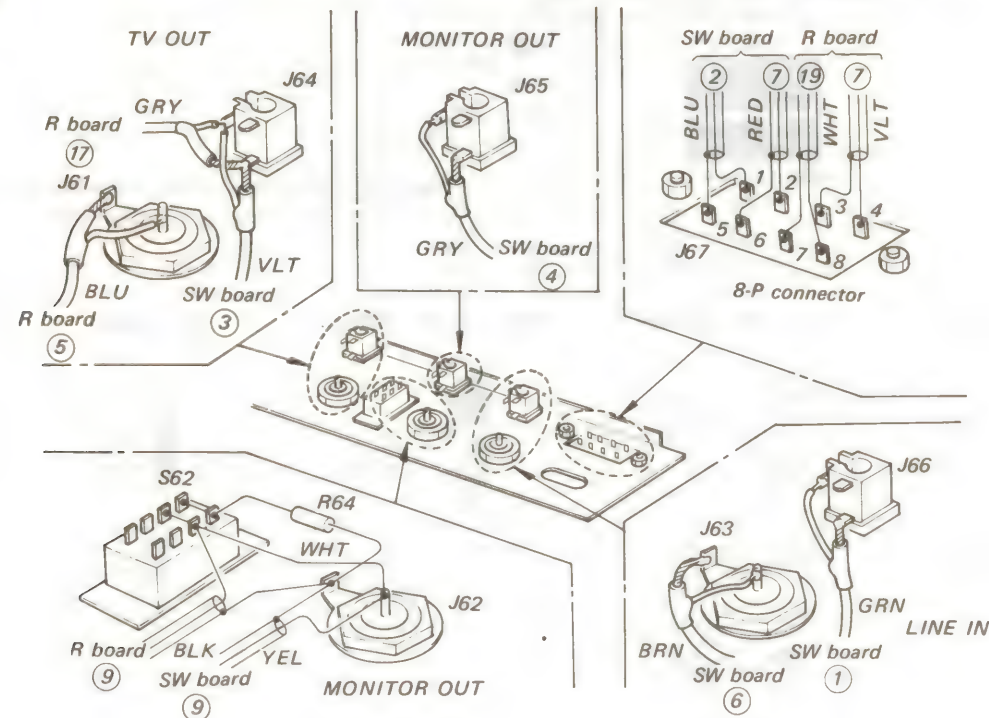


6-7. HC CIRCUIT BOARD

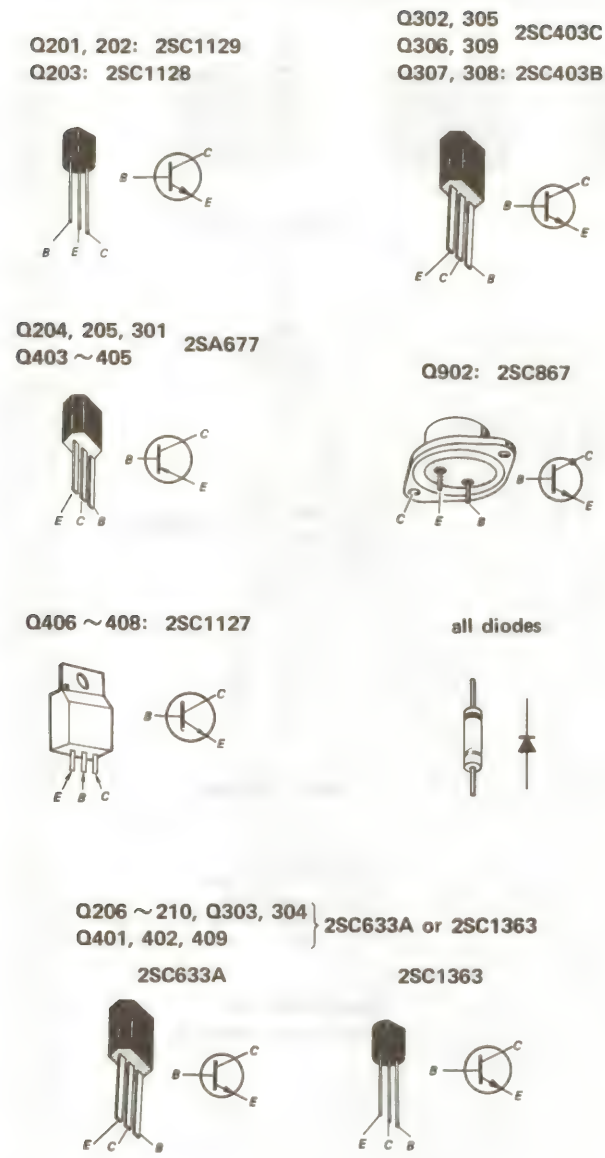


Note: Parts marked ■ are mounted on conductor side.

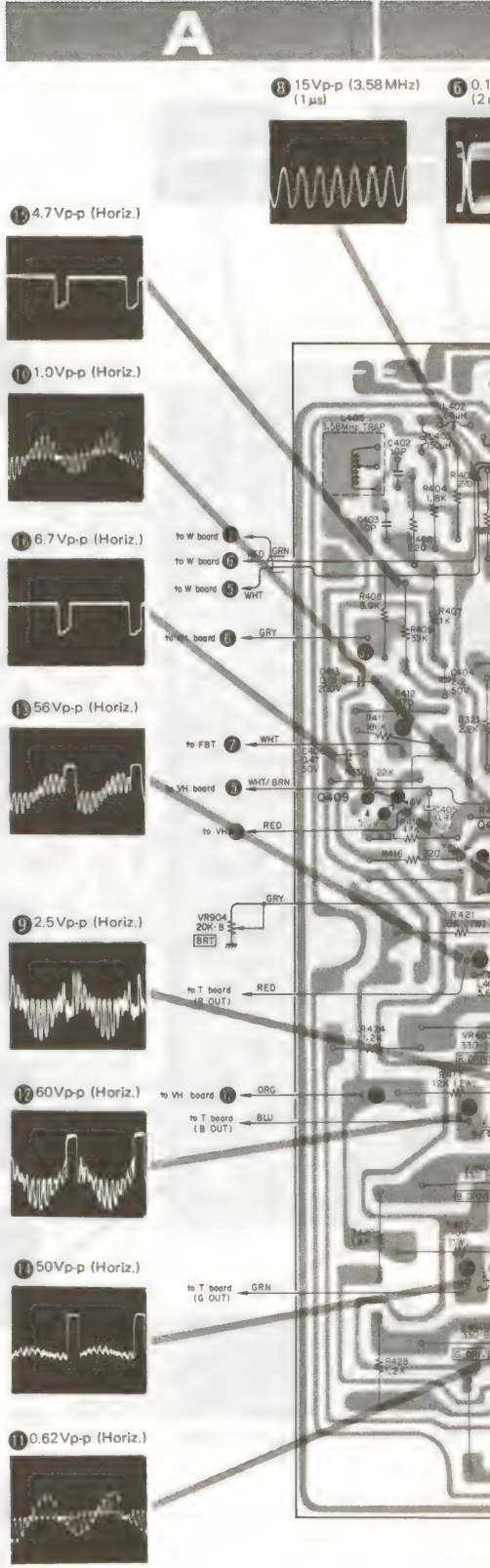
CONNECTOR



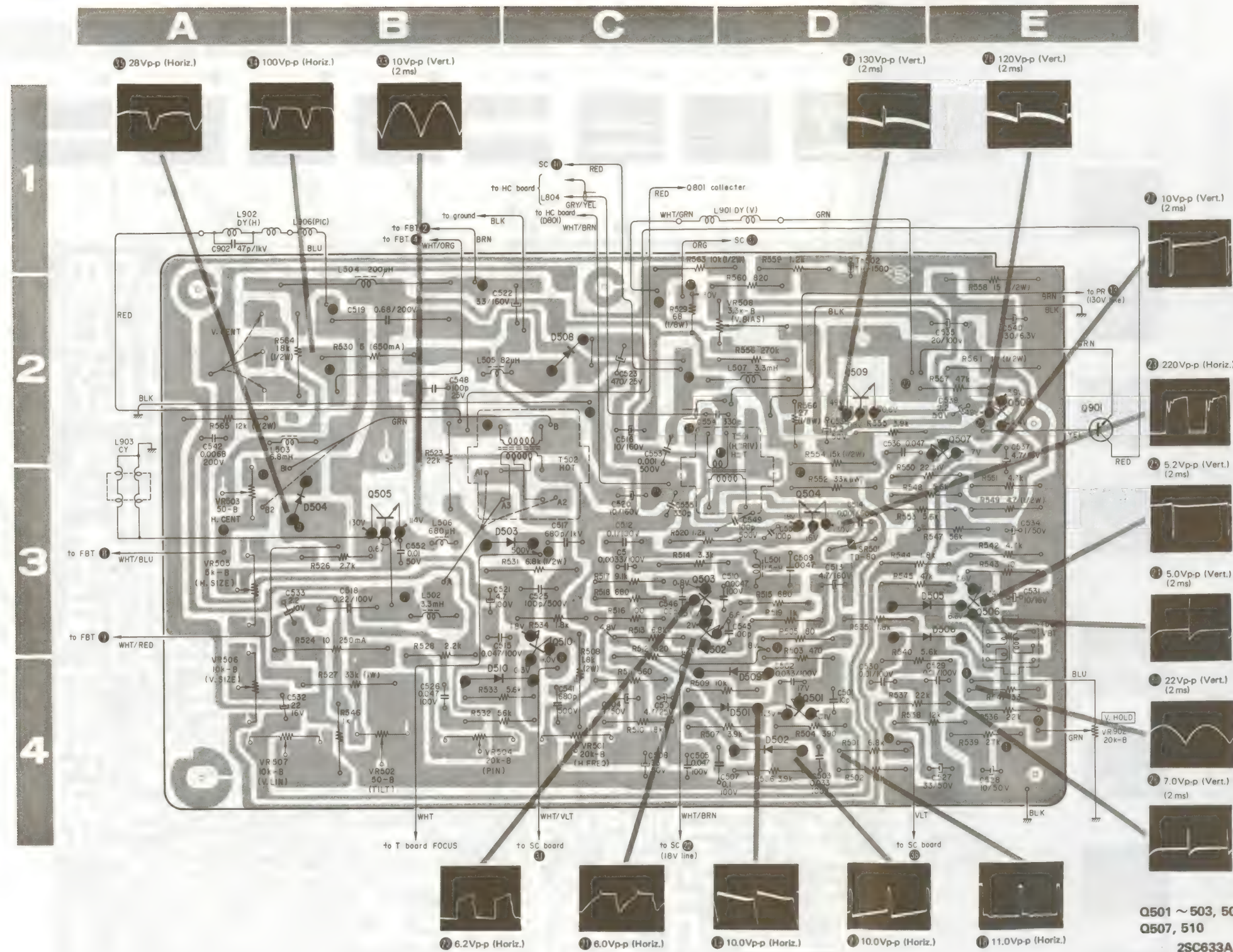
6-9. SC CIRCUIT BOARD



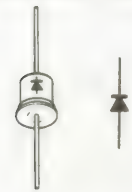
Note: Parts marked ■ are mounted on conductor side.



6-8. VH CIRCUIT BOARD



D504, 508: SB-2



D503: HFSD-1C



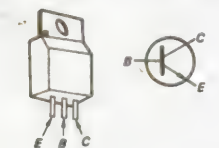
D501, 502, 505: 1T22(A)
D506, 510
D509: 1T40



Q901: 2SC867



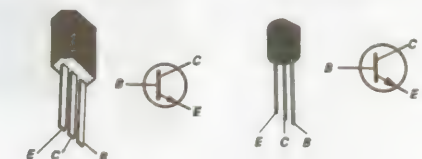
Q504: 2SC1127
Q505, 509: 2SC1124



Q508: 2SC926A

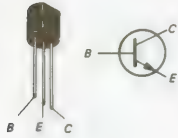


Q501 ~ 503, 506, 507, 510: 2SC633A or 2SC1363
2SC633A 2SC1363

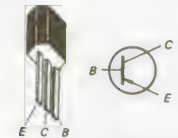


6-9. SC CIRCUIT BOARD

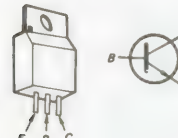
Q201, 202: 2SC1129
Q203: 2SC1128



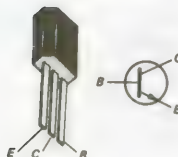
Q204, 205, 301
Q403 ~ 405



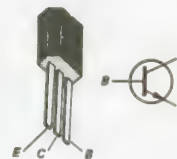
Q406 ~ 408: 2SC1127



Q206 ~ 210, Q303, 304 } 2SC633A or 2SC1363
Q401, 402, 409



Q302, 305 2SC403C
Q306, 309
Q307, 308: 2SC403B



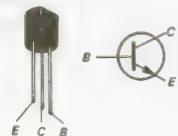
Q902: 2SC867



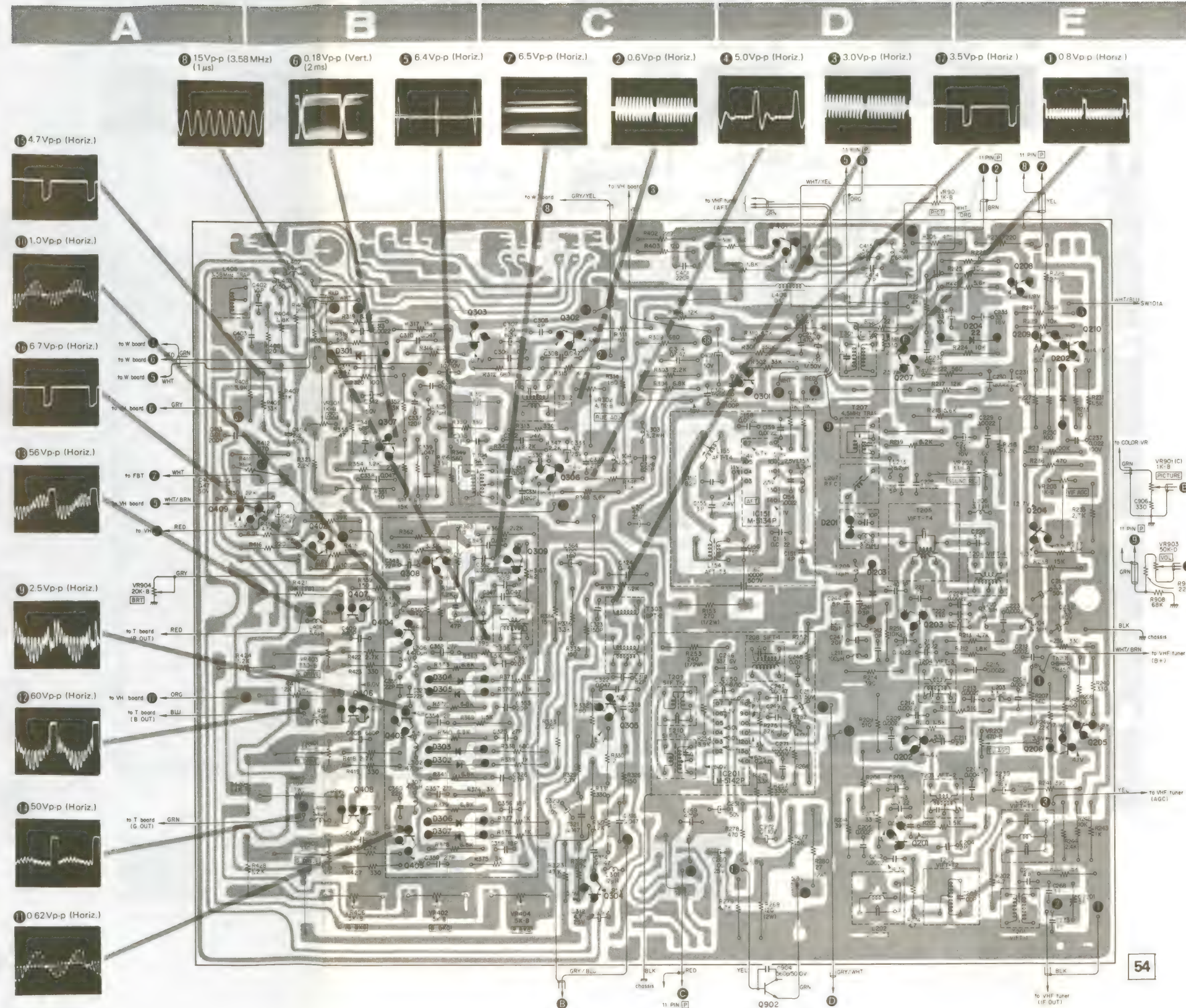
all diodes



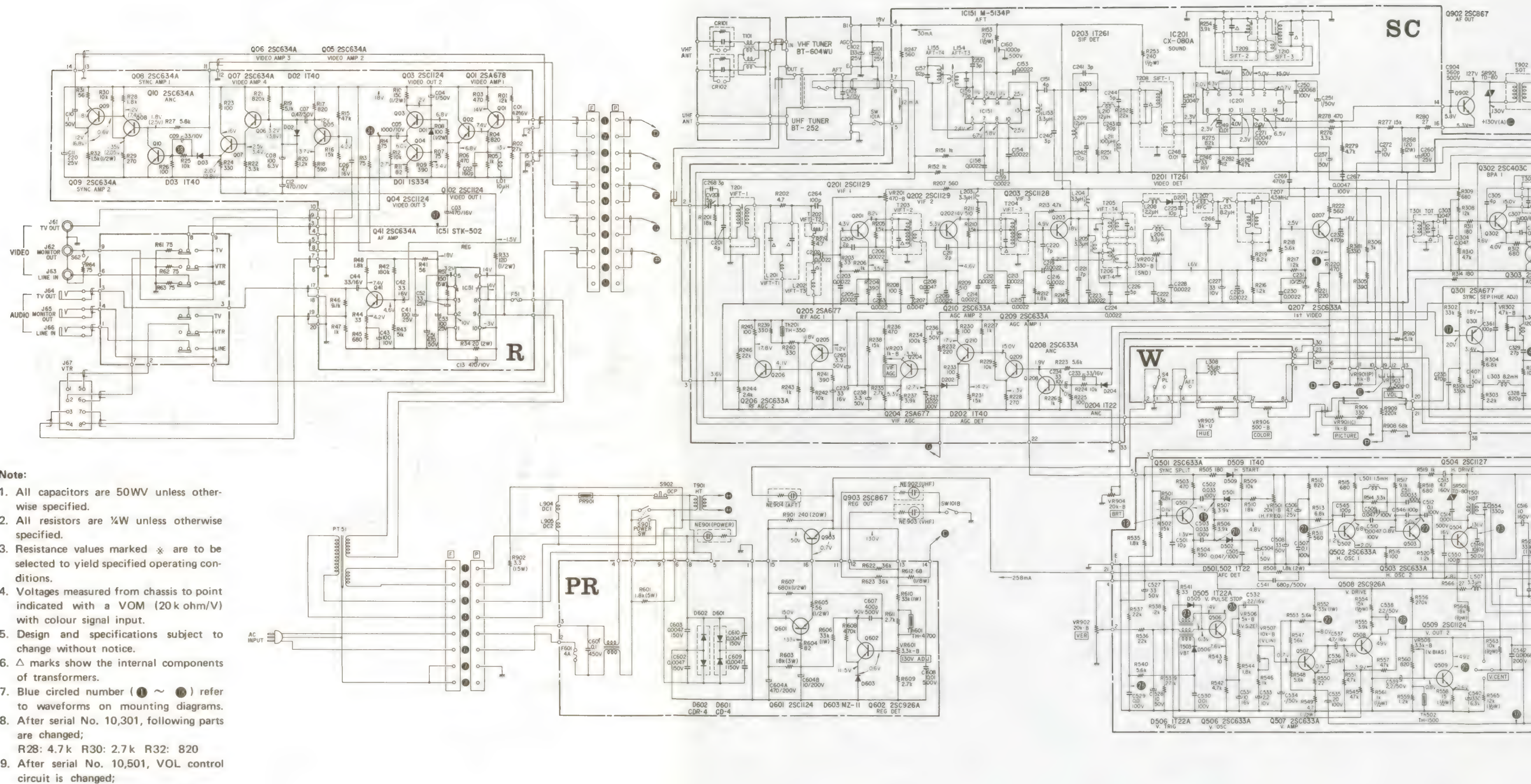
2SC1363

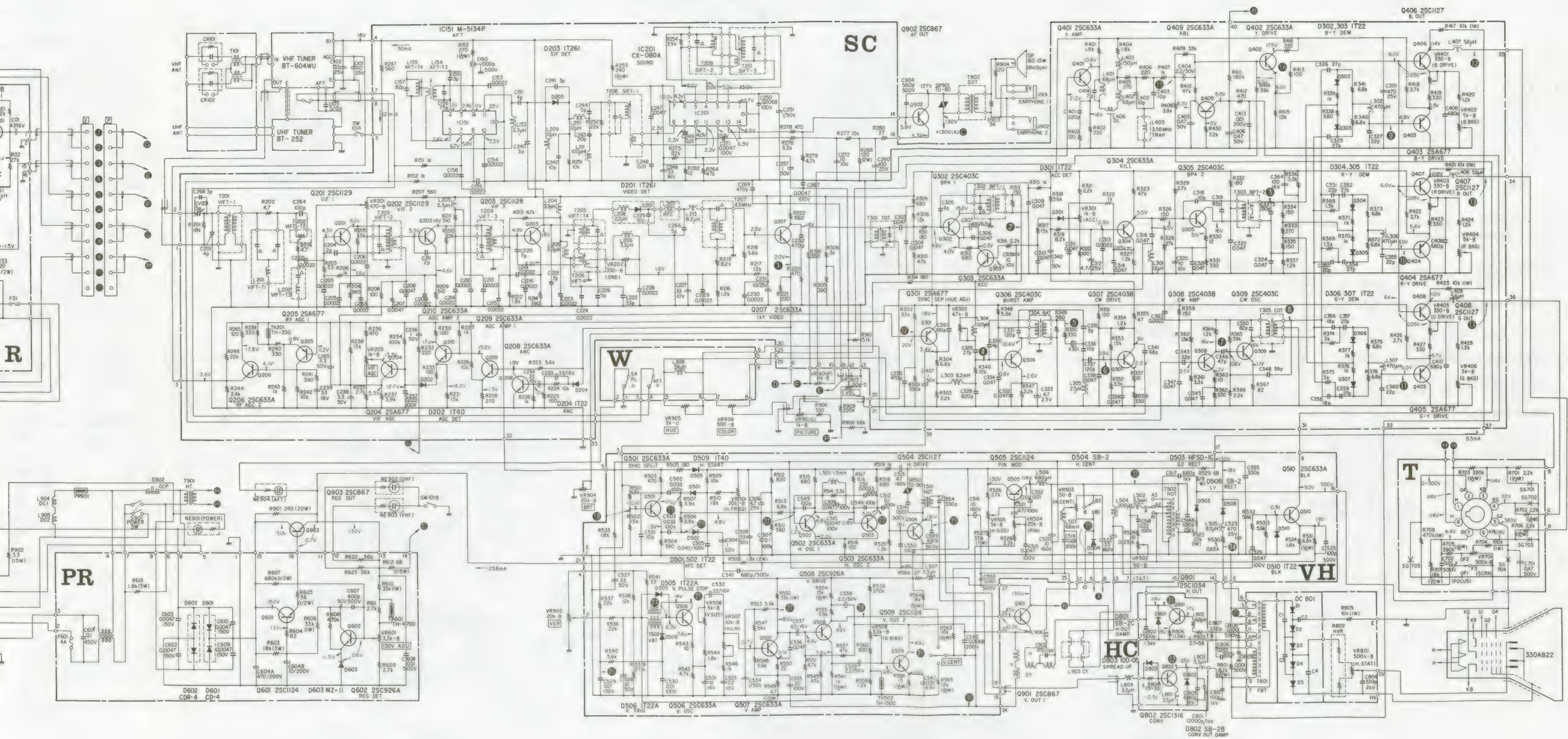


Note: Parts marked ■ are mounted on conductor side.



6-10. SCHEMATIC DIAGRAM





SECTION 7
EXPLODED VIEW AND PACKING

7-1. HARDWARE NOMENCLATURE

Part No.	Description	Part No.	Description
7-621-722-57	screw, self-tapping BV 3 x 8	7-682-661-01	screw, PS 4 x 8
7-621-722-63	screw, self-tapping BV 3 x 10	7-685-159-21	screw, self-tapping P 4 x 8
7-621-722-75	screw, self-tapping BV 3 x 12	7-685-160-21	screw, self-tapping P 4 x 10
7-682-148-01	screw, P 3 x 8	7-623-408-01	washer, ext tooth 3 mm dia
7-682-153-13	screw, P 3 x 20	7-623-508-01	lug, 3 mm dia
7-682-566-01	screw, P 4 x 20	7-684-013-01	nut, 3 mm dia
7-682-647-01	screw, PS 3 x 6		

— Hardware Nomenclature —

P — Pan Head Screw		SC — Set Screw	
PS — Pan Head Screw with Spring Washer		E — Retaining Ring (E Washer)	
K — Flat Countersunk Head Screw		W — Washer	
B — Binding Head Screw		SW — Spring Washer	
RK — Oval Countersunk Head Screw		LW — Lock Washer	
T — Truss Head Screw		N — Nut	
R — Round Head Screw			
F — Flat Fillister Head Screw			

— Example —

Type of Slot
P 3x10

Length in mm (L)

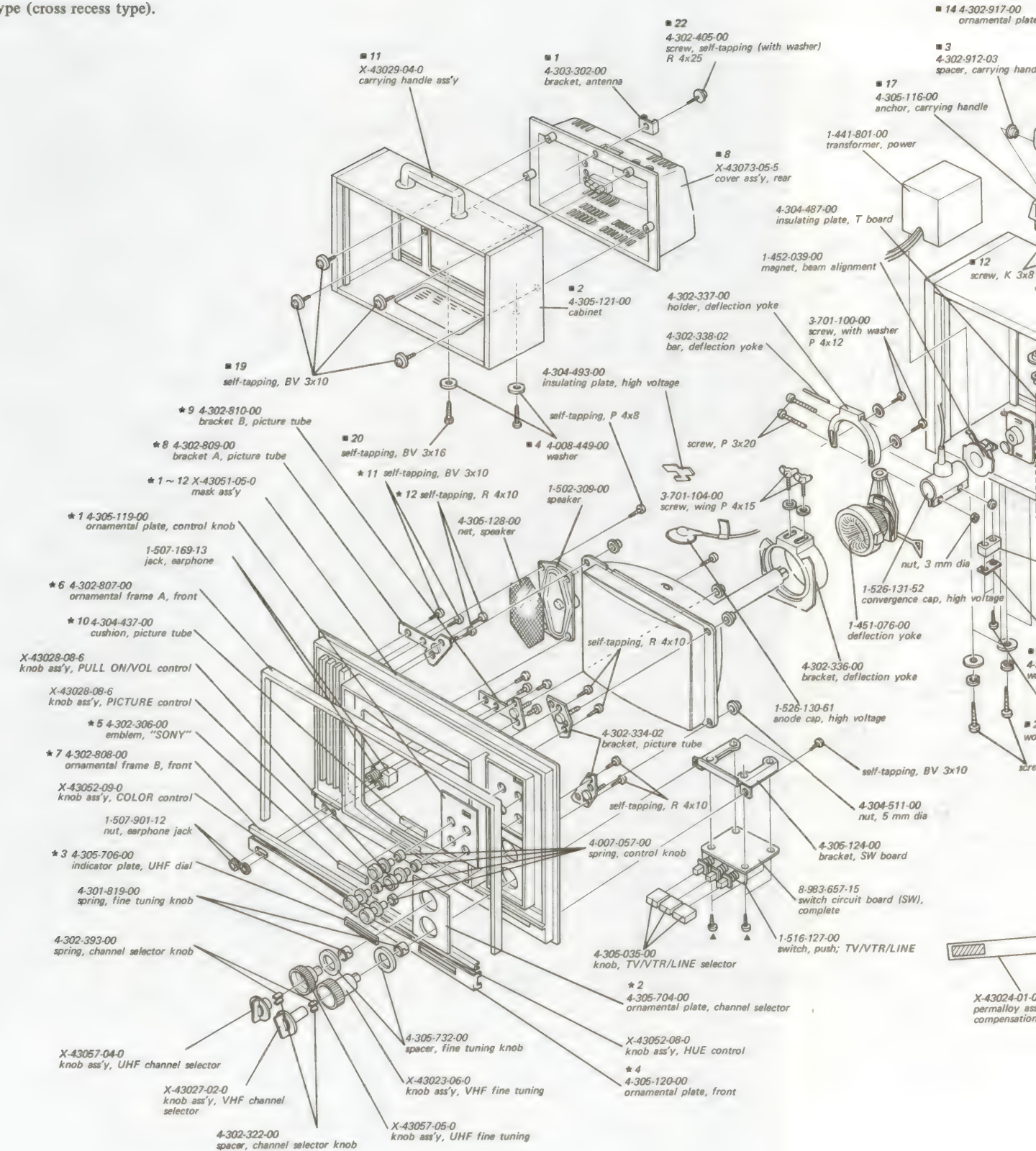
Diameter in mm (D)

Type of Head

When ordering replacement parts you should use **PART NUMBER** listed on the Parts List or shown in the Exploded View.
The reference number should not be used for ordering purposes.

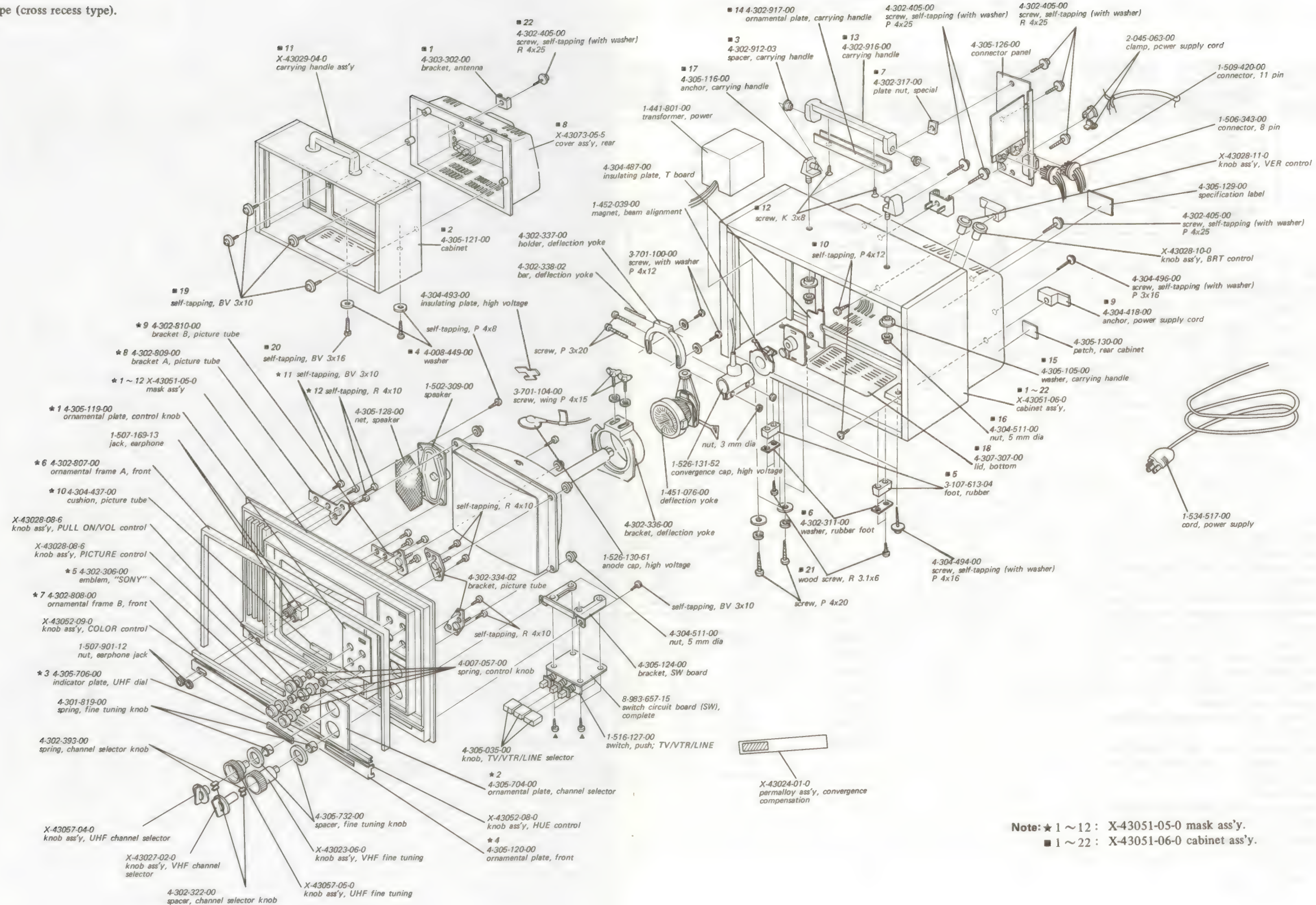
7-2. EXPLODED VIEW (1)

All screws are phillips type (cross recess type).



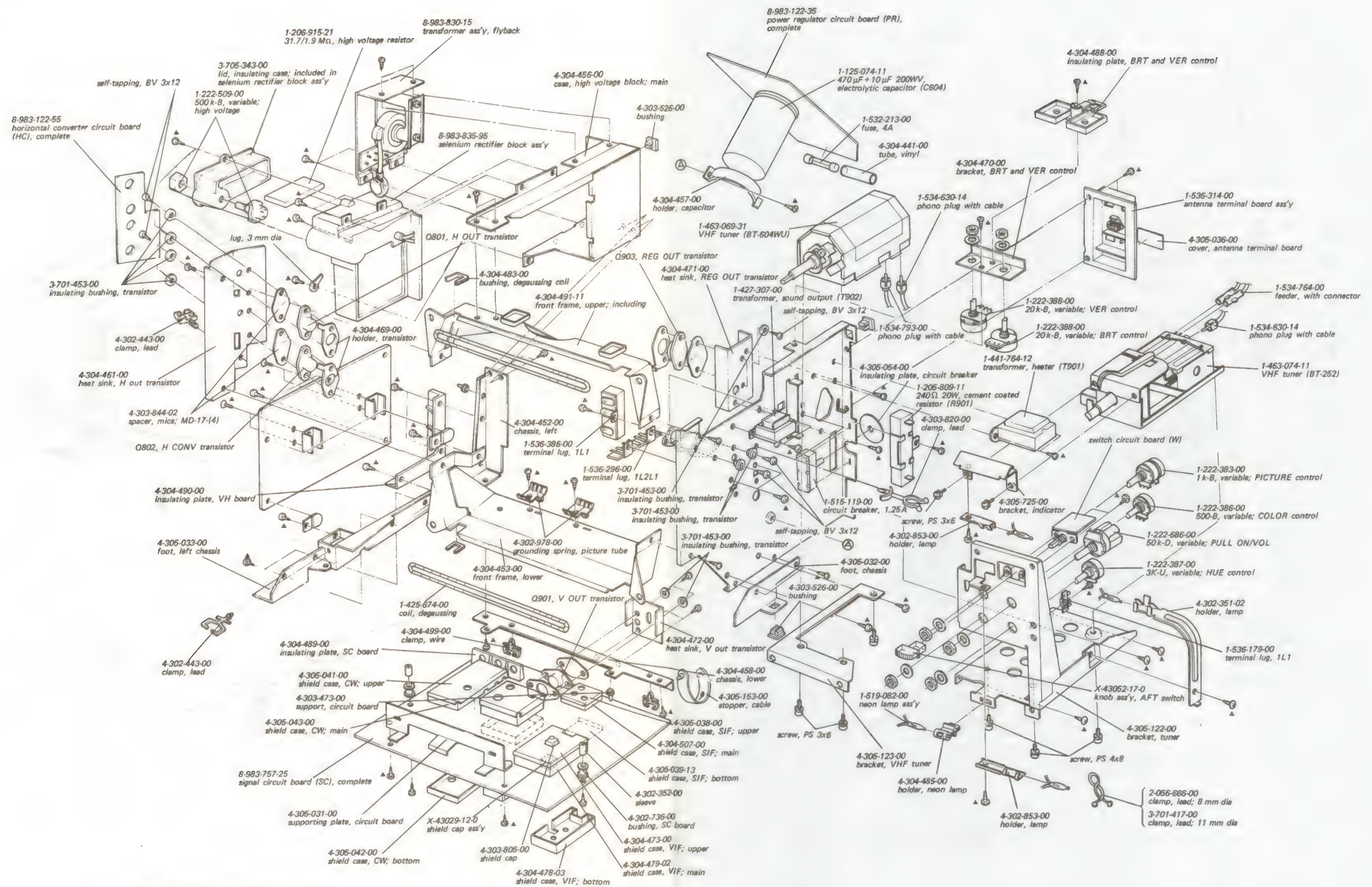
7-2. EXPLODED VIEW (1)

All screws are phillips type (cross recess type).



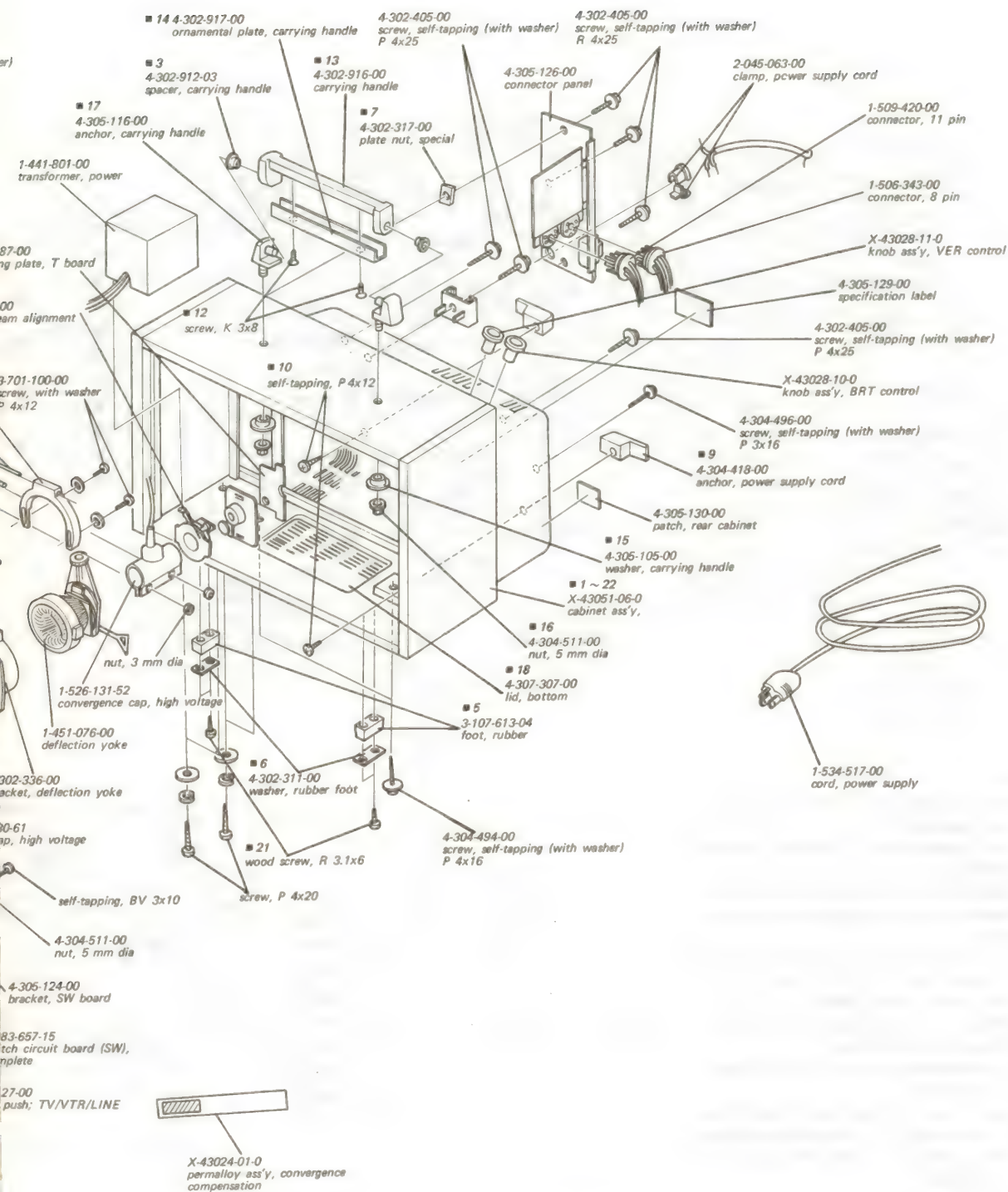
Note: ★ 1 ~ 12 : X-43051-05-0 mask ass'y.
 ■ 1 ~ 22 : X-43051-06-0 cabinet ass'y.

7-3. EXPLODED VIEW (2)

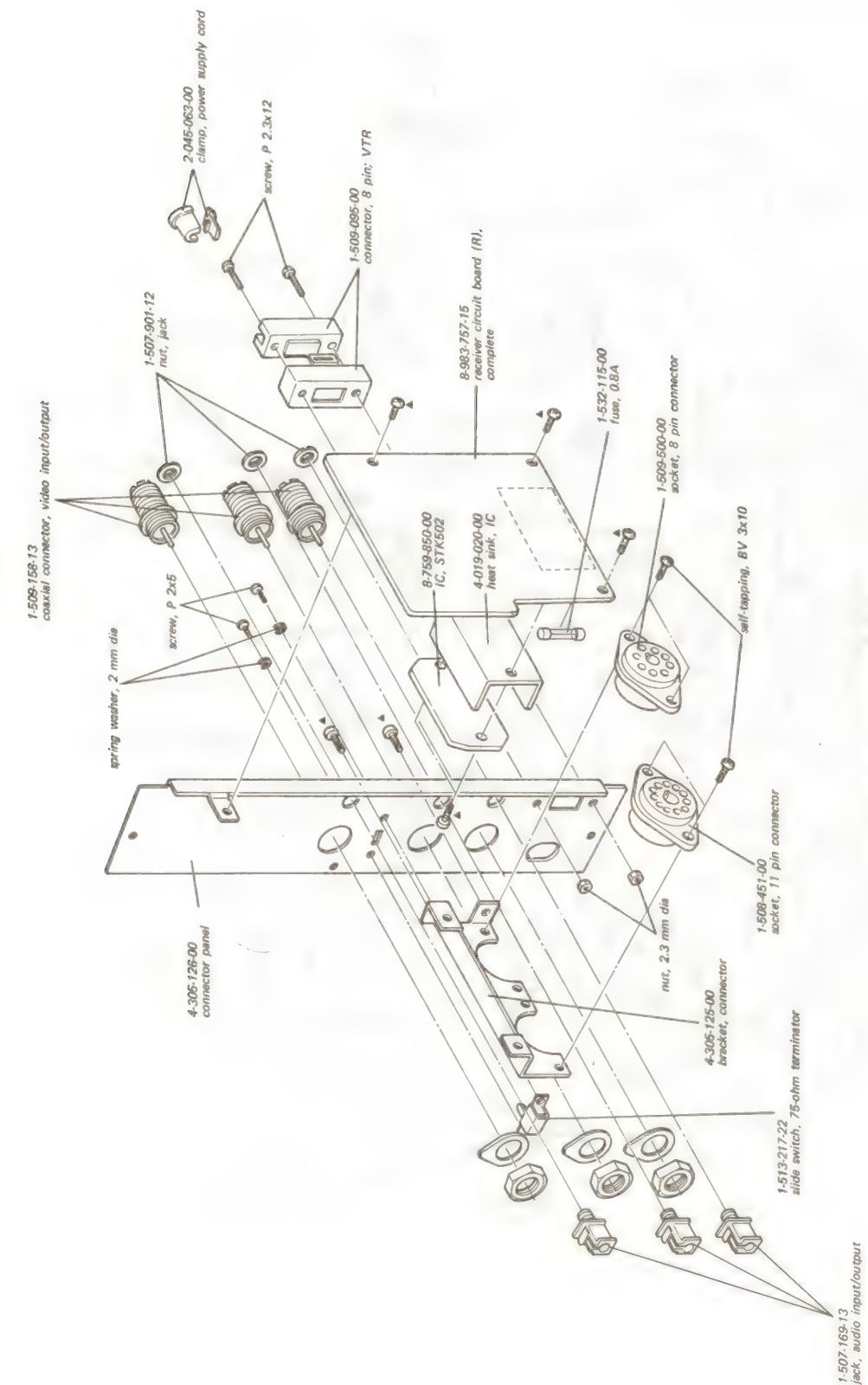


Note: ▲ : self-tapping screw BV 3x8.

7-4. EXPLODED VIEW (3)

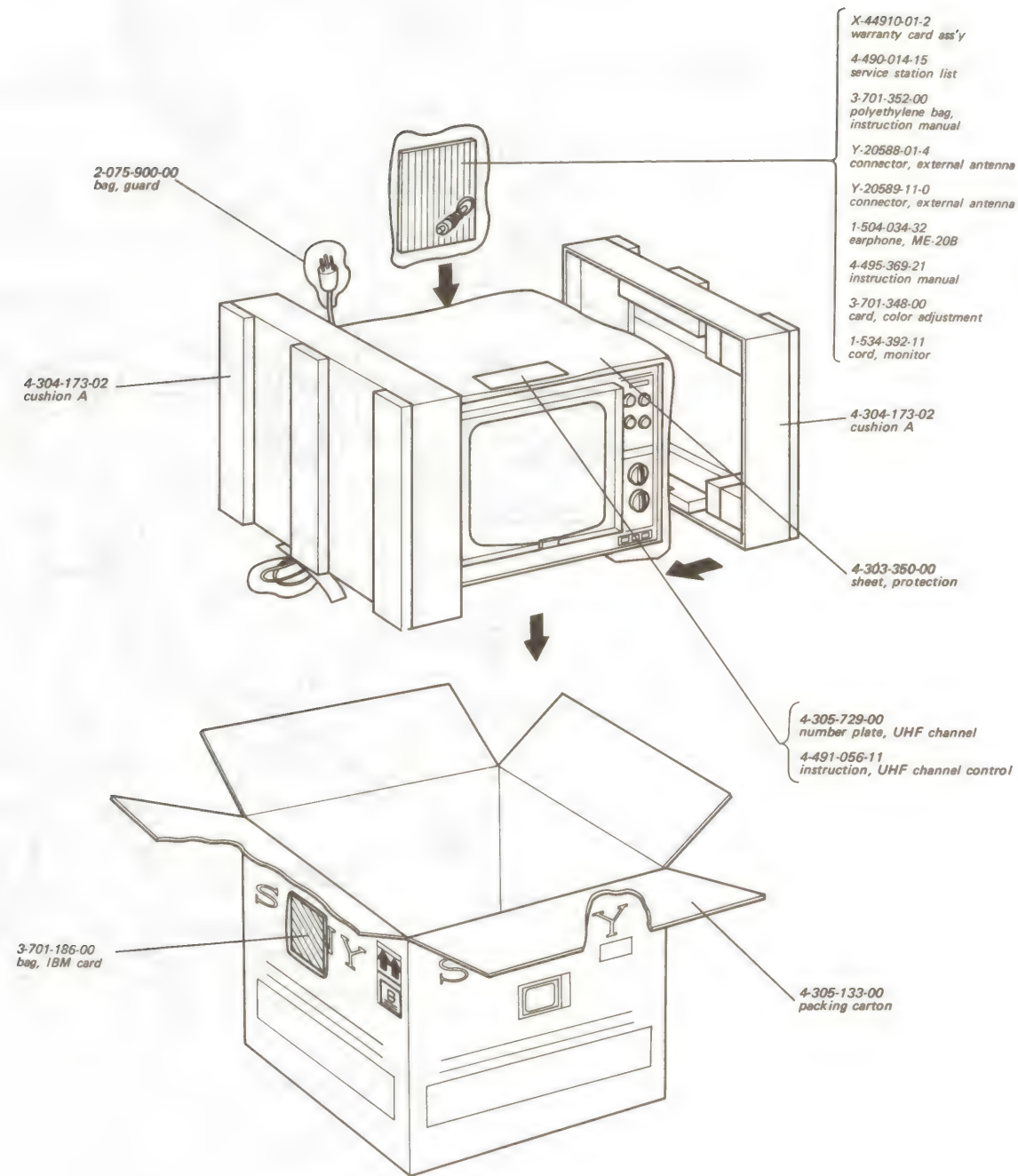


Note: ★ 1 ~ 12 : X-43051-05-0 mask ass'y.
 ■ 1 ~ 22 : X-43051-06-0 cabinet ass'y.



Note: ▲ : self-tapping screw BV 3x8.

7-5. PACKING



SECTION 8
ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
GENERAL					
1-463-069-31	VHF tuner (BT-604Wu)		Q401	transistor	2SC633A or 2SC1363
1-463-074-11	UHF tuner (BT-252)		Q402	transistor	2SC633A or 2SC1363
1-581-210-12	switch printed circuit board (W)		Q403	transistor	2SA677
8-983-118-85	socket circuit board (T), complete		Q404	transistor	2SA677
8-983-122-55	horizontal converter circuit board (HC), complete		Q405	transistor	2SA677
8-983-122-25	vertical and horizontal deflection circuit board (VH), complete		Q406	transistor	2SC1127
8-983-122-35	power regulator circuit board (PR), complete		Q407	transistor	2SC1127
8-983-657-15	switch circuit board (SW), complete		Q408	transistor	2SC1127
8-983-757-15	receiver circuit board (R), complete		Q409	transistor	2SC633A or 2SC1363
8-983-757-25	signal circuit board (SC), complete		Q501	transistor	2SC633A or 2SC1363
SEMICONDUCTORS					
Q01	transistor	2SA678	Q502	transistor	2SC633A or 2SC1363
Q02	transistor	2SC1124	Q503	transistor	2SC633A or 2SC1363
Q03	transistor	2SC1124	Q504	transistor	2SC1127
Q04	transistor	2SC1124	Q505	transistor	2SC1124
Q05	transistor	2SC634A	Q506	transistor	2SC633A or 2SC1363
Q06	transistor	2SC634A	Q507	transistor	2SC633A or 2SC1363
Q07	transistor	2SC634A	Q508	transistor	2SC926A
Q08	transistor	2SC634A	Q509	transistor	2SC1124
Q09	transistor	2SC634A	Q510	transistor	2SC633A or 2SC1363
Q10	transistor	2SC634A	Q601	transistor	2SC1124
Q41	transistor	2SC634A	Q602	transistor	2SC926A
Q201	transistor	2SC1129	Q801	transistor	2SC1034
Q202	transistor	2SC1129	Q802	transistor	2SC1316
Q203	transistor	2SC1128	Q901	transistor	2SC867
Q204	transistor	2SA677	Q902	transistor	2SC867
Q205	transistor	2SA677	Q903	transistor	2SC867
Q206	transistor	2SC633A or 2SC1363	D01	diode	1S334
Q207	transistor	2SC633A or 2SC1363	D02	diode	1T40
Q208	transistor	2SC633A or 2SC1363	D03	diode	1T22A
Q209	transistor	2SC633A or 2SC1363	D201	diode	1T261
Q210	transistor	2SC633A or 2SC1363	D202	diode	1T40
Q301	transistor	2SA677	D203	diode	1T261
Q302	transistor	2SC403C	D204	diode	1T22(A)
Q303	transistor	2SC633A or 2SC1363	D301	diode	1T22(A)
Q304	transistor	2SC633A or 2SC1363	D302	diode	1T22(A)
Q305	transistor	2SC403C	D303	diode	1T22(A)
Q306	transistor	2SC403C	D304	diode	1T22(A)
Q307	transistor	2SC403B	D305	diode	1T22(A)
Q308	transistor	2SC403B	D306	diode	1T22(A)
Q309	transistor	2SC403C	D307	diode	1T22(A)
			D501	diode	1T22(A)
			D502	diode	1T22(A)
			D503	diode	HFSD-1C

Ref. No.	Part No.	Description
D504		diode SB-2
D505		diode 1T22(A)
D506		diode 1T22(A)
D507		-----
D508		diode SB-2
D509		diode 1T40
D510		diode 1T22(A)
D601		diode CD-4
D602		diode CDR-4
D603		diode MZ-11 or MZ-12
D801		diode SB-2C
D802		diode SB-2B
D803		diode 10D-05
IC51	8-759-850-00	IC, STK502
IC151	1-805-105-00	IC, M-5134P
IC201	8-750-800-00	IC, CX-080A
Th201	1-800-071-00	thermistor TH-350
Th502	1-800-069-00	thermistor TH-1500
Th601	1-800-070-00	thermistor TH-4700
PR901	1-800-065-00	posistor, 2P
SR501	1-800-032-00	varistor, TD-80
SR901	1-800-032-00	varistor, TD-80
COILS		
L01	1-407-157-00	10μF micro inductor
L153	1-407-184-00	3.3μH micro inductor
L154	1-403-731-00	transformer, automatic fine tuning; AFT T-3
L155	1-403-732-00	transformer, automatic fine tuning; AFT T-4
L201	1-409-219-12	coil, wave trap; VIFT-T1
L202	1-409-220-12	coil, wave trap; VIFT-T3
L203	1-407-184-00	3.3μH micro inductor
L204	1-407-184-00	3.3μH micro inductor
L205	1-407-184-00	3.3μH micro inductor
L206	1-407-184-00	3.3μH micro inductor
L207	1-425-504-00	coil, RF
L208	1-407-182-00	2.2μH micro inductor
L209	1-407-158-00	12μH micro inductor
L210	1-407-158-00	12μH micro inductor
L211	1-407-169-00	100μH micro inductor

Ref. No.	Part No.	Description
L212		-----
L213	1-407-189-00	8.2μH micro inductor
L301	1-407-158-00	12μH micro inductor
L302	1-407-661-00	470μH micro inductor
L303	1-407-205-00	8.2 mH micro inductor
L304	1-407-170-00	120μH micro inductor
L305	1-407-162-00	27μH micro inductor
L306	1-407-661-00	470μH micro inductor
L307	1-407-661-00	470μH micro inductor
L308	1-407-166-00	56μH micro inductor
L401	1-407-167-00	68μH micro inductor
L402	1-407-167-00	68μH micro inductor
L403	1-407-171-00	150μH micro inductor
L404		-----
L405	1-409-193-00	coil, wave trap; 3.58 MHz
L406		-----
L407	1-407-187-00	5.6μH micro inductor
L408	1-407-187-00	5.6μH micro inductor
L409	1-407-187-00	5.6μH micro inductor
L501	1-407-646-00	1.5 mH micro inductor
L502	1-459-075-00	3.3 mH, dynamic convergence coil
L503	1-459-074-00	6.8 mH, horizontal centering coil
L504	1-407-346-00	200μH, spook choke
L505	1-407-553-00	82μH, line choke
L506	1-407-193-00	680μH micro inductor
L507	1-407-364-00	3.3μH, spook choke
L801	1-407-364-00	3.3μH, spook choke
L802	1-407-556-00	6.8μH, spook choke
L803	1-407-364-00	3.3μH, spook choke
L804	1-407-364-00	3.3μH, spook choke
L904	1-425-674-00	coil, degaussing
L905	1-425-674-00	coil, degaussing
L906	1-452-039-00	magnet, beam alignment
TRANSFORMERS		
T201	1-403-733-00	transformer video i-f; VIFT-1
T202	1-409-213-00	transformer video i-f; VIFT-T2
T203	1-403-550-00	transformer video i-f; VIFT-2
T204	1-403-550-00	transformer video i-f; VIFT-3
T205	1-409-174-00	transformer video i-f; VIFT-T4
T206	1-403-524-00	transformer video i-f; VIFT-4
T207	1-409-146-00	coil, wave trap; 4.5 MHz
T208	1-403-350-00	transformer sound i-f; SIFT-1
T209	1-403-371-00	transformer sound i-f; SIFT-2
T210	1-403-372-00	transformer sound i-f; SIFT-3

Ref. No.	Part No.	Description
T301	1-425-670-00	transformer output, TOT
T302	1-425-619-00	transformer 1st band pass; BPT-1
T303	1-425-506-00	transformer 2nd band pass; BPT-2
T304	1-405-372-00	transformer burst amp; BAT
T305	1-425-618-00	transformer cw oscillator, COT
T501	1-437-030-00	transformer horizontal drive; HDT
T502	1-439-097-00	transformer horizontal output; HOT
T503	1-435-008-00	transformer vertical blocking; VBT
T601	1-421-302-21	transformer line filter; LFT
T801	8-983-830-15	transformer ass'y, flyback
T901	1-441-764-12	transformer heater; HT
T902	1-427-307-00	transformer sound output
PT51	1-441-801-00	transformer power
CAPACITORS		
All capacitors are in μF except as indicated with p, and in 50 WV and ceramic unless otherwise specified. P means μμF.		
C01	1-121-801-11	47 ± ¹⁰⁰ / ₁₀ % 16 WV electrolytic
C02	1-101-367-11	160p ±5%
C03	1-121-426-11	470 ± ¹⁰⁰ / ₁₀ % 16 WV electrolytic
C04	1-121-391-11	1 ± ¹⁵⁰ / ₁₀ % 50 WV electrolytic
C05	1-121-245-11	1,000 ± ¹⁰⁰ / ₁₀ % 16 WV electrolytic
C06	1-121-801-11	47 ± ¹⁰⁰ / ₁₀ % 16 WV electrolytic
C07	1-121-726-11	0.47 ± ¹⁵⁰ / ₁₀ % 50 WV electrolytic
C08	1-121-413-11	100 ± ¹⁰⁰ / ₁₀ % 6.3 WV electrolytic
C09	1-121-402-11	33 ± ¹⁰⁰ / ₁₀ % 10 WV electrolytic
C10	1-121-391-11	1 ± ¹⁵⁰ / ₁₀ % 50 WV electrolytic
C11	1-121-422-11	220 ± ¹⁰⁰ / ₁₀ % 25 WV electrolytic
C12	1-121-425-11	470 ± ¹⁰⁰ / ₁₀ % 10 WV electrolytic
C13	1-121-425-11	470 ± ¹⁰⁰ / ₁₀ % 10 WV electrolytic
C41	1-121-416-11	100 ± ¹⁰⁰ / ₁₀ % 25 WV electrolytic
C42	1-121-403-11	33 ± ¹⁰⁰ / ₁₀ % 16 WV electrolytic
C43	1-121-413-11	100 ± ¹⁰⁰ / ₁₀ % 6.3 WV electrolytic
C44	1-121-403-11	33 ± ¹⁰⁰ / ₁₀ % 16 WV electrolytic
C51	1-121-810-11	470 ± ¹⁰⁰ / ₁₀ % 50 WV electrolytic
C52	1-121-404-11	33 ± ¹⁰⁰ / ₁₀ % 25 WV electrolytic
C53	1-121-416-11	100 ± ¹⁰⁰ / ₁₀ % 25 WV electrolytic
C101	1-121-398-11	10 ± ¹⁰⁰ / ₁₀ % 25 WV electrolytic
C102	1-121-404-11	33 ± ¹⁰⁰ / ₁₀ % 25 WV electrolytic
C103	1-121-257-11	5 ± ¹⁰⁰ / ₁₀ % 15 WV electrolytic

Ref. No.	Part No.	Description
C151	1-102-941-11	4p ±0.5p
C152		-----
C153	1-102-100-11	0.0022 ±20%
C154	1-102-100-11	0.0022 ±20%
C155	1-102-940-11	3p ±0.5p
C156	1-102-526-11	75p ±5%
C157	1-102-496-11	82p ±5%
C158	1-102-100-11	0.0022 ±20%
C159	1-102-100-11	0.0022 ±20%
C160	1-102-043-11	1,000p ± ²⁰⁰ / ₀ % 500 WV
C201	1-102-882-11	4p ±0.25p
C202	1-101-002-11	0.0022 ± ¹⁰⁰ / ₀ %
C203	1-101-002-11	0.0022 ± ¹⁰⁰ / ₀ %
C204	1-102-935-11	2p ±0.25p
C205	1-101-002-11	0.0022 ± ¹⁰⁰ / ₀ %
C206	1-101-002-11	0.0022 ± ¹⁰⁰ / ₀ %
C207	1-101-003-11	0.0047 ± ¹⁰⁰ / ₀ %
C208	1-101-003-11	0.0047 ± ¹⁰⁰ / ₀ %
C209	1-101-002-11	0.0022 ± ¹⁰⁰ / ₀ %
C210		-----
C211	1-102-935-11	2p ±0.25p
C212	1-101-002-11	0.0022 ± ¹⁰⁰ / ₀ %
C213	1-101-002-11	0.0022 ± ¹⁰⁰ / ₀ %
C214	1-101-002-11	0.0022 ± ¹⁰⁰ / ₀ %
C215	1-101-002-11	0.0022 ± ¹⁰⁰ / ₀ %
C216	1-101-002-11	0.0022 ± ¹⁰⁰ / ₀ %
C217		-----
C218		-----
C219	1-101-002-11	0.0022 ± ¹⁰⁰ / ₀ %
C220	1-102-944-11	7p ±0.5p
C221	1-102-662-11	7p ±0.5p
C222	1-102-963-11	33p ±5%
C223	1-101-002-11	0.0022 ± ¹⁰⁰ / ₀ %
C224	1-101-002-11	0.0022 ± ¹⁰⁰ / ₀ %
C225	1-102-947-11	10p ±5%
C226	1-102-856-11	5p ±0.5p
C227	1-121-402-11	33 ± ¹⁰⁰ / ₁₀ % 10 WV electrolytic
C228	1-101-002-11	0.0022 ± ¹⁰⁰ / ₀ %
C229	1-101-002-11	0.0022 ± ¹⁰⁰ / ₀ %
C230	1-101-002-11	0.0022 ± ¹⁰⁰ / ₀ %
C231	1-121-398-11	10 ± ¹⁰⁰ / ₁₀ % 25 WV electrolytic
C232	1-102-098-11	470p ±20%
C233	1-121-403-11	33 ± ¹⁰⁰ / ₁₀ % 16 WV electrolytic
C234	1-121-402-11	33 ± ¹⁰⁰ / ₁₀ % 10 WV electrolytic
C235	1-102-098-11	470p ±20%
C236	1-121-391-11	1 ± ¹⁵⁰ / ₁₀ % 50 WV electrolytic
C237	1-108-630-11	0.022 ±10% 100 WV mylar
C238	1-121-393-11	3.3 ± ¹⁵⁰ / ₁₀ % 50 WV electrolytic
C239	1-121-403-11	33 ± ¹⁰⁰ / ₁₀ % 16 WV electrolytic
C240	1-102-940-11	3p ±0.5p
C241	1-102-940-11	3p ±0.5p

Ref. No.	Part No.	Description
C242	1-102-947-11	10p ±5%
C243	1-102-958-11	20p ±5%
C244	1-102-942-11	5p ±0.5p
C245	-----	-----
C246	1-121-403-11	33 ±100% 16 WV electrolytic
C247	1-101-003-11	0.0047 ±100%
C248	1-101-004-11	0.01 ±100%
C249	1-101-004-11	0.01 ±100%
C250	1-108-624-11	0.0068 ±10% 100 WV mylar
C251	1-121-391-11	1 ±150% 50 WV electrolytic
C252	-----	-----
C253	-----	-----
C254	-----	-----
C255	-----	-----
C256	-----	-----
C257	1-121-391-11	1 ±150% 50 WV electrolytic
C258	-----	-----
C259	-----	-----
C260	1-121-416-11	100 ±100% 25 WV electrolytic
C261	-----	-----
C262	-----	-----
C263	1-101-002-11	0.0022 ±100%
C264	1-102-529-11	100p ±5%
C265	1-121-393-11	3.3 ±150% 50 WV electrolytic
C266	1-102-942-11	5p ±0.5p
C267	1-108-622-11	0.0047 ±10% 100 WV mylar
C268	1-102-862-11	3p ±0.25p
C269	1-102-098-11	470p ±20%
C270	-----	-----
C271	1-108-622-11	0.0047 ±10% 100 WV mylar
C272	1-121-469-11	10 ±100% 10 WV electrolytic
C301	1-121-733-11	470 ±100% 25 WV electrolytic
C302	-----	-----
C303	1-101-006-11	0.047 ±100%
C304	1-101-006-11	0.047 ±100%
C305	1-102-941-11	4p ±0.5p
C306	1-101-006-11	0.047 ±100%
C307	1-121-413-11	100 ±100% 6.3 WV electrolytic
C308	1-101-006-11	0.047 ±100%
C309	1-121-469-11	10 ±100% 10 WV electrolytic
C310	1-101-006-11	0.047 ±100%
C311	1-101-006-11	0.047 ±100%
C312	1-121-395-11	4.7 ±150% 25 WV electrolytic
C313	1-101-002-11	0.0022 ±100%
C314	1-101-006-11	0.047 ±100%
C315	-----	-----
C316	1-101-006-11	0.047 ±100%
C317	-----	-----
C318	1-102-947-11	10p ±5%
C319	1-102-863-11	82p ±5%
C320	1-121-469-11	10 ±100% 10 WV electrolytic

Ref. No.	Part No.	Description
C321	1-101-006-11	0.047 ±100%
C322	1-101-006-11	0.047 ±100%
C323	1-102-888-11	150p ±5%
C324	1-101-006-11	0.047 ±100%
C325	1-102-961-11	27p ±5%
C326	1-102-961-11	27p ±5%
C327	1-102-959-11	22p ±5%
C328	1-102-117-11	820p ±10%
C329	1-102-961-11	27p ±5%
C330	1-102-941-11	4p ±0.5p
C331	1-102-765-11	120p ±5%
C332	1-101-006-11	0.047 ±100%
C333	1-121-395-11	4.7 ±150% 25 WV electrolytic
C334	1-101-006-11	0.047 ±100%
C335	1-102-942-11	5p ±0.5p
C336	1-102-858-11	10p ±0.5p
C337	1-102-816-11	120p ±5%
C338	1-101-006-11	0.047 ±100%
C339	1-101-006-11	0.047 ±100%
C340	-----	-----
C341	1-101-888-11	68p ±5%
C342	1-121-391-11	1 ±150% 50 WV electrolytic
C343	1-102-959-11	22p ±5%
C344	-----	-----
C345	1-101-006-11	0.047 ±100%
C346	1-101-880-11	47p ±5%
C347	1-101-006-11	0.047 ±100%
C348	1-102-965-11	39p ±5%
C349	-----	-----
C350	1-102-886-11	82p ±5%
C351	1-102-958-11	20p ±5%
C352	1-102-961-11	27p ±5%
C353	1-102-958-11	20p ±5%
C354	1-102-961-11	27p ±5%
C355	1-102-959-11	22p ±5%
C356	1-102-953-11	18p ±5%
C357	1-102-961-11	27p ±5%
C358	1-102-935-11	18p ±5%
C359	1-102-961-11	27p ±5%
C360	1-102-959-11	22p ±5%
C361	1-102-973-11	100p ±5%
C362	1-101-002-11	0.0022 ±100%
C363	-----	-----
C364	1-121-415-11	100 ±100% 16 WV electrolytic
C401	1-102-978-11	220p ±5%
C402	1-102-858-11	10p ±0.5p
C403	1-102-858-11	10p ±0.5p
C404	1-121-450-11	2.2 ±150% 50 WV electrolytic
C405	1-121-726-11	0.47 ±150% 50 WV electrolytic
C406	1-121-726-11	0.47 ±150% 50 WV electrolytic
C407	1-121-391-11	1 ±150% 50 WV electrolytic

Ref. No.	Part No.	Description
C408	1-101-439-11	680p ±20%
C409	1-101-439-11	680p ±20%
C410	1-101-439-11	680p ±20%
C411	-----	-----
C412	-----	-----
C413	1-105-753-12	0.01 ±10% 200 WV mylar
C414	1-102-944-11	7p ±0.5p
C501	1-102-947-11	10p ±5%
C502	1-108-632-11	0.033 ±10% 100 WV mylar
C503	1-108-632-11	0.033 ±10% 100 WV mylar
C504	1-121-391-11	1 ±150% 50 WV electrolytic
C505	1-108-634-11	0.047 ±10% 100 WV mylar
C506	1-121-395-11	4.7 ±150% 25 WV electrolytic
C507	1-108-638-11	0.1 ±10% 100 WV mylar
C508	1-121-405-11	33 ±100% 50 WV electrolytic
C509	1-106-212-12	0.047 ±5% 100 WV mylar
C510	1-106-188-12	0.0047 ±5% 100 WV mylar
C511	1-106-184-12	0.0033 ±5% 100 WV mylar
C512	1-108-638-11	0.1 ±10% 100 WV mylar
C513	1-121-246-11	4.7 ±100% 160 WV electrolytic
C514	1-102-038-11	0.001 ±100% 500 WV
C515	1-108-634-11	0.047 ±10% 100 WV mylar
C516	1-121-921-11	10 ±100% 160 WV electrolytic
C517	1-102-219-11	680p ±20% 1 kWV
C518	1-105-729-13	0.22 ±10% 100 WV mylar
C519	1-108-549-11	0.68 ±10% 200 WV mylar
C520	1-121-708-11	10 ±100% 160 WV electrolytic
C521	1-121-918-11	4.7 ±100% 100 WV electrolytic
C522	1-123-024-11	33 ±100% 160 WV electrolytic
C523	1-121-733-11	470 ±100% 25 WV electrolytic
C524	-----	-----
C525	1-101-810-11	100p ±5% 500 WV
C526	1-108-634-11	0.047 ±10% 100 WV mylar
C527	1-121-405-11	33 ±100% 50 WV electrolytic
C528	1-121-738-11	10 ±100% 50 WV electrolytic
C529	1-108-626-11	0.01 ±10% 100 WV mylar
C530	1-108-626-11	0.01 ±10% 100 WV mylar
C531	1-127-307-11	10 ±20% 16 WV solid aluminum electrolytic
C532	1-121-479-11	22 ±100% 16 WV electrolytic
C533	1-127-024-11	2.2 ±20% 10 WV solid aluminum electrolytic
C534	1-121-391-11	1 ±150% 50 WV electrolytic
C535	1-121-917-11	20 ±100% 100 WV electrolytic
C536	1-101-006-11	0.047 ±100%
C537	1-121-409-11	47 ±100% 16 WV electrolytic
C538	1-121-450-11	2.2 ±150% 50 WV electrolytic
C539	1-121-450-11	2.2 ±150% 50 WV electrolytic
C540	1-121-751-11	330 ±100% 6.3 WV electrolytic
C541	1-102-002-11	680p ±10% 500 WV
C542	1-105-751-11	0.0068 ±10% 200 WV mylar

Ref. No.	Part No.	Description
C543	-----	-----
C544	-----	-----
C545	1-102-973-11	100p ±5%
C546	1-102-973-11	100p ±5%
C547	-----	-----
C548	1-102-153-11	100p ±20% 2 kWV
C549	1-101-810-11	100p ±5% 500 WV
C550	1-102-973-11	100p ±5%
C551	-----	-----
C552	1-101-004-11	0.01 ±100%
C553	1-102-038-11	0.001 ±100% 500 WV
C554	1-102-820-11	330p ±5%
C555	1-102-820-11	330p ±5%
C601	1-108-747-11	0.1 ±20% 200 WV mylar
C602	1-102-189-11	0.0047 ±80% 150 WV (ac) 14 kWV (dc)
C603	1-102-189-11	0.0047 ±80% 150 WV (ac) 14 kWV (dc)
C604	1-125-074-11	470/10 ±200 WV electrolytic (twin type)
C605	-----	-----
C606	-----	-----
C607	1-101-807-11	40p ±5% 500 WV
C608	1-101-823-11	0.01 ±100% 500 WV
C609	1-102-189-11	0.0047 ±80% 150 WV (ac) 14 kWV (dc)
C610	1-102-189-11	0.0047 ±80% 150 WV (ac) 14 kWV (dc)
C701	1-119-327-11	0.47 ±150% 500 WV electrolytic
C702	1-102-050-11	0.01 ±20% 500 WV
C801	1-129-777-11	12,000p ±5% 1,000 WV, film
C802	1-129-859-11	7,500p ±5% 1,500 WV, film
C803	-----	-----
C804	-----	-----
C805	1-102-219-11	680p ±20% 1 kWV
C806	1-102-038-11	0.001 ±100% 500 WV
C807	1-102-820-11	330p ±5%
C808	1-102-038-11	0.001 ±100% 500 WV
C809	1-102-038-11	0.001 ±100% 500 WV
C810	1-102-153-11	100p ±20% 2 kV
C901	-----	-----
C902	-----	-----
C903	-----	-----
C904	1-102-157-11	560p ±10% 500 WV
C905	1-105-793-12	0.01 ±10% 400 WV mylar
CV201	1-141-138-00	5p trimmer

Ref. No. Part No. Description

RESISTORS

All resistors are in ohm, $\pm 5\%$, $\frac{1}{4}W$, carbon unless otherwise specified.

R01	1-244-699-11	12 k
R02	1-244-707-11	27 k
R03	1-244-665-11	470
R04	1-244-671-11	820
R05	1-244-673-11	1 k
R06	1-244-865-11	470 $\frac{1}{2}W$
R07	1-244-646-11	75
R08	1-244-649-11	100
R09	1-244-663-11	390
R10	1-244-853-11	150 $\frac{1}{2}W$
R11	1-244-847-11	82 $\frac{1}{2}W$
R12	1-244-697-11	10 k
R13	1-244-646-11	75
R14	1-244-646-11	75
R15	1-244-713-11	47 k
R16	1-244-701-11	15 k
R17	1-244-671-11	820
R18	1-244-666-11	510
R19	1-244-690-11	5.1 k
R20	1-244-675-11	1.2 k
R21	1-244-743-11	820 k
R22	1-244-685-11	3.3 k
R23	1-244-649-11	100
R24	1-244-861-11	330 $\frac{1}{2}W$
R25	1-244-697-11	10 k
R26	1-244-649-11	100
R27	1-244-691-11	5.6 k
R28	1-244-679-11	1.8 k
R28	1-244-689-11	4.7 k
(serial No. 10,301 and later)		
R29	1-244-659-11	270
R30	1-244-697-11	10 k
R30	1-244-683-11	2.7 k
(serial No. 10,301 and later)		
R31	1-244-643-11	56
R32	1-244-877-11	1.5 k $\frac{1}{2}W$
R32	1-244-871-11	820 $\frac{1}{2}W$
(serial No. 10,301 and later)		
R33	1-244-852-11	120 $\frac{1}{2}W$
R34	1-206-470-11	20 2W, metal oxide
R35		-----
R36		-----
R37		-----
R38		-----
R39		-----
R40		-----
R41	1-244-643-11	56

Ref. No. Part No. Description

R42	1-244-727-11	180 k
R43	1-244-714-11	51 k
R44	1-244-637-11	33
R45	1-244-669-11	680
R46	1-244-696-11	9.1 k
R47	1-244-673-11	1 k
R48	1-244-679-11	1.8 k
R49		-----
R50		-----
R51	1-217-080-11	150 5W, cement coated
R61	1-244-646-11	75
R62	1-244-646-11	75
R63	1-244-646-11	75
R64	1-244-646-11	75
R151	1-244-673-11	1 k
R152	1-244-673-11	1 k
R153	1-244-859-11	270 $\frac{1}{2}W$
R201	1-244-703-11	18 k
R202	1-244-617-11	4.7
R203	1-244-637-11	33
R204	1-244-663-11	390
R205	1-244-677-11	1.5 k
R206	1-244-673-11	1 k
R207	1-244-667-11	560
R208	1-244-649-11	100
R209	1-244-666-11	510
R210	1-244-677-11	1.5 k
R211	1-244-666-11	510
R212	1-244-679-11	1.8 k
R213	1-244-689-11	4.7 k
R214	1-244-663-11	390
R215		-----
R216	1-244-675-11	1.2 k
R217	1-244-699-11	12 k
R218	1-244-691-11	5.6 k
R219	1-244-695-11	8.2 k
R220	1-244-665-11	470
R221	1-244-657-11	220
R222	1-244-667-11	560
R223	1-244-691-11	5.6 k
R224	1-244-697-11	10 k
R225	1-244-649-11	100
R226	1-244-673-11	1 k
R227	1-244-673-11	1 k
R228	1-244-659-11	270
R229	1-244-697-11	10 k
R230	1-244-649-11	100
R231	1-244-677-11	1.5 k
R232	1-244-657-11	220

Ref. No. Part No. Description

R233	1-244-649-11	100
R234	1-244-721-11	100 k
R235	1-244-683-11	2.7 k
R236	1-244-665-11	470
R237	1-244-687-11	3.9 k
R238	1-244-701-11	15 k
R239	1-244-661-11	330
R240	1-244-661-11	330
R241	1-244-663-11	390
R242	1-244-697-11	10 k
R243	1-244-673-11	1 k
R244	1-244-682-11	2.4 k
R245	1-244-649-11	100
R246	1-244-705-11	22 k
R247	1-244-667-11	560
R248		-----
R249		-----
R250		-----
R251	1-244-697-11	10 k
R252	1-244-705-11	22 k
R253	1-244-858-11	240 $\frac{1}{2}W$
R254	1-244-687-11	3.9 k
R264	1-244-713-11	47 k
R265		-----
R266		-----
R267		-----
R268	1-206-642-11	120 2W, metal oxide
R269		-----
R270		-----
R271		-----
R272		-----
R273		-----
R274	1-244-617-11	4.7
R275	1-244-719-11	82 k
R276	1-244-685-11	3.3 k
R277	1-244-701-11	15 k
R278	1-244-665-11	470
R279	1-244-689-11	4.7 k
R280	1-244-635-11	27
R281		-----
R282	1-244-627-11	12
R301	1-244-733-11	330 k
R302	1-244-709-11	33 k
R303	1-244-681-11	2.2 k
R304	1-244-693-11	6.8 k
R305	1-244-663-11	390
R306	1-244-684-11	3 k
R307		-----
R308	1-244-699-11	12 k
R309	1-244-669-11	680

Ref. No. Part No. Description

R310	1-244-689-11	4.7 k
R311	1-244-655-11	180
R312	1-244-669-11	680
R313	1-244-653-11	150
R314	1-244-655-11	180
R315	1-244-673-11	1 k
R316	1-244-681-11	2.2 k
R317	1-244-701-11	15 k
R318	1-244-715-11	56 k
R319	1-244-695-11	8.2 k
R320	1-244-649-11	100
R321	1-244-681-11	2.2 k
R322	1-244-673-11	1 k
R323	1-244-713-11	47 k
R324		-----
R325		-----
R326	1-244-653-11	150
R327	1-244-675-11	1.2 k
R328	1-244-707-11	27 k
R329	1-244-683-11	2.7 k
R330	1-244-627-11	12
R331	1-244-661-11	330
R332	1-244-655-11	180
R333	1-244-659-11	270
R334	1-244-653-11	150
R335	1-244-653-11	150
R336	1-244-685-11	3.3 k
R337	1-244-675-11	1.2 k
R338	1-244-669-11	680
R339	1-244-673-11	1 k
R340	1-244-693-11	6.8 k
R341	1-244-693-11	6.8 k
R342		-----
R343		-----
R344		-----
R345		-----
R346	1-244-697-11	10 k
R347	1-244-681-11	2.2 k
R348	1-244-691-11	5.6 k
R349	1-244-667-11	560
R350	1-244-661-11	330
R351	1-244-653-11	150
R352	1-244-685-11	3.3 k
R353	1-244-701-11	15 k
R354	1-244-675-11	1.2 k
R355	1-244-641-11	47
R356	1-244-661-11	330
R357	1-244-625-11	10
R358		-----
R359	1-244-653-11	150
R360	1-244-701-11	15 k
R361	1-244-685-11	3.3 k

Ref. No.	Part No.	Description
R362	1-244-661-11	330
R363	1-244-625-11	10
R364	1-244-675-11	1.2 k
R365	1-244-711-11	39 k
R366	1-244-681-11	2.2 k
R367	1-244-647-11	82
R368	1-244-677-11	1.5 k
R369	1-244-677-11	1.5 k
R370	1-244-673-11	1 k
R371	1-244-673-11	1 k
R372	1-244-693-11	6.8 k
R373	1-244-693-11	6.8 k
R374	1-244-684-11	3 k
R375	1-244-684-11	3 k
R376	1-244-673-11	1 k
R377	1-244-673-11	1 k
R378	1-244-693-11	6.8 k
R379	1-244-693-11	6.8 k
R380		
R381	1-244-661-11	330
R401	1-244-679-11	1.8 k
R402	1-244-657-11	220
R403	1-244-651-11	120
R404	1-244-679-11	1.8 k
R405	1-244-659-11	270
R406	1-244-657-11	220
R407	1-244-673-11	1 k
R408	1-244-687-11	3.9 k
R409	1-244-709-11	33 k
R410	1-244-713-11	47 k
R411	1-244-727-11	180 k
R412	1-244-665-11	470
R413	1-244-649-11	100
R414	1-244-711-11	39 k
R415	1-244-677-11	1.5 k
R416	1-244-657-11	220
R417	1-206-104-11	10 k 1 W, metal oxide
R418	1-244-683-11	2.7 k
R419	1-244-661-11	330
R420	1-244-675-11	1.2 k
R421	1-206-104-11	10 k 1 W, metal oxide
R422	1-244-683-11	2.7 k
R423	1-244-661-11	330
R424	1-244-675-11	1.2 k
R425	1-206-104-11	10 k 1 W, metal oxide
R426	1-244-683-11	2.7 k
R427	1-244-661-11	330
R428	1-244-675-11	1.2 k
R429		
R430	1-244-705-11	22 k

Ref. No.	Part No.	Description
R501	1-244-693-11	6.8 k
R502	1-244-701-11	15 k
R503	1-244-665-11	470
R504	1-244-663-11	390
R505	1-244-655-11	180
R506	1-244-687-11	3.9 k
R507	1-244-687-11	3.9 k
R508	1-206-017-11	1.8 k 2 W, metal oxide
R509	1-244-697-11	10 k
R510	1-244-703-11	18 k
R511	1-244-667-11	560
R512	1-244-671-11	820
R513	1-244-693-11	6.8 k
R514	1-244-685-11	3.3 k
R515	1-244-669-11	680
R516	1-244-649-11	100
R517	1-244-696-11	9.1 k
R518	1-244-669-11	680
R519	1-211-935-11	1 k
R520	1-211-940-11	1.2 k
R521		
R522		
R523	1-202-792-31	22 k 1 W, composition
R524	1-207-903-13	10 0.25 A, fuse
R525		
R526	1-244-683-11	2.7 k
R527	1-206-110-11	33 k 1 W, metal oxide
R528	1-244-681-11	2.2 k
R529	1-211-931-11	68 1/8 W
R530	1-207-241-12	5 0.65 A, fuse
R531	1-244-893-11	6.8 k 1/2 W
R532	1-244-715-11	56 k
R533	1-244-691-11	5.6 k
R534	1-244-679-11	1.8 k
R535	1-244-679-11	1.8 k
R536	1-244-705-11	22 k
R537	1-244-705-11	22 k
R538	1-244-699-11	12 k
R539	1-244-707-11	27 k
R540	1-244-691-11	5.6 k
R541	1-244-637-11	33
R542	1-244-689-11	4.7 k
R543	1-244-625-11	10
R544	1-244-679-11	1.8 k
R545	1-244-713-11	47 k
R546	1-244-673-11	1 k
R547	1-244-715-11	56 k
R548	1-244-691-11	5.6 k
R549	1-207-471-11	4.7 1/2 W, wire wound
R550	1-244-633-11	22
R551	1-244-689-11	4.7 k
R552	1-206-110-11	33 k 1 W, metal oxide

Ref. No.	Part No.	Description
R553	1-244-691-11	5.6 k
R554	1-244-901-11	15 k 1/2 W
R555	1-244-687-11	3.9 k
R556	1-244-731-11	270 k
R557	1-244-713-11	47 k
R558	1-244-829-11	15 1/2 W
R559	1-244-675-11	1.2 k
R560	1-244-671-11	820
R561	1-244-873-11	1 k 1/2 W
R562		
R563	1-244-897-11	10 k 1/2 W
R564	1-244-903-11	18 k 1/2 W
R565	1-244-899-11	12 k 1/2 W
R566	1-211-932-11	27 1/8 W
R601	1-206-380-11	1.8 k 5 W, metal oxide
R602		
R603	1-206-694-11	18 k 2 W, metal oxide
R604	1-211-929-11	82 1/8 W
R605	1-202-543-11	56 1/2 W, composition
R606	1-202-794-31	33 k 1 W, composition
R607	1-202-641-31	680 k 1/2 W, composition
R608	1-244-737-11	470 k
R609	1-244-683-11	2.7 k
R610	1-206-110-11	33 k 1 W, metal oxide
R611	1-244-683-11	2.7 k
R612	1-211-931-11	68 1/8 W
R622	1-244-710-11	36 k
R623	1-244-710-11	36 k
R701	1-202-581-11	2.2 k 1/2 W, composition
R702	1-202-581-11	2.2 k 1/2 W, composition
R703	1-202-629-11	220 k 1/2 W, composition
R704	1-202-800-11	100 k 1 W, composition
R705	1-202-635-11	390 k 1/2 W, composition
R706	1-202-581-11	2.2 k 1/2 W, composition
R707	1-202-603-11	18 k 1/2 W, composition
R708	1-202-808-11	470 k 1 W, composition
R801	1-244-895-11	8.2 k 1/2 W
R802	1-206-915-21	31.7 M + 1.9 M, high voltage
* R803	1-206-918-11	2.7 3 W, metal oxide
* R803	1-206-922-11	5.6 3 W, metal oxide
* R804	1-206-927-11	15 3 W, metal oxide
* R804	1-206-929-11	22 3 W, metal oxide
* R804	1-206-930-11	27 3 W, metal oxide
* R804	1-206-934-11	33 3 W, metal oxide
R805	1-202-788-11	10 k 1 W, composition
R806	1-217-007-11	1 3 W, cement coated

* : selected to yield optimum performance

Ref. No.	Part No.	Description
R901	1-205-809-11	240 20 W, cement coated
R902	1-205-467-11	3.3 15 W, cement coated
R903	1-244-643-11	56
R904	1-244-651-11	120
R905		
R906	1-244-661-11	330
R907		
R908	1-244-721-11	100 k
R908	1-244-715-11	56 k
		(serial No. 10,501 and later)
R909	1-244-737-11	470 k
R909		
		(serial No. 10,501 and later)
R910	1-244-690-11	5.1 k
R910		
		(serial No. 10,501 and later)
VR201	1-222-516-00	470-B adjustable; tuner AGC
VR202	1-222-515-00	330-B adjustable; SND REJ
VR203	1-222-517-00	1 k-B adjustable; VIF AGC
VR301	1-222-517-00	1 k-B adjustable; ACC
VR302	1-222-518-00	4.7 k-B adjustable; HUE
VR401	1-222-515-00	330-B adjustable; B DRIVE
VR402	1-222-344-00	5 k-B adjustable; B BKG
VR403	1-222-515-00	330-B adjustable; R DRIVE
VR404	1-222-344-00	5 k-B adjustable; R BKG
VR405	1-222-515-00	330-B adjustable; G DRIVE
VR406	1-222-344-00	5 k-B adjustable; G BKG
VR501	1-222-725-00	20 k-B adjustable; H FREQ
VR502	1-223-017-00	50-B 2 W adjustable; TILT
VR503	1-223-017-00	50-B 2 W adjustable; H CENT
VR504	1-222-725-00	20 k-B adjustable; PIN
VR505	1-222-344-00	5 k-B adjustable; H SIZE
VR506	1-222-512-00	10 k-B adjustable; V SIZE
VR507	1-222-512-00	10 k-B adjustable; V LIN
VR508	1-222-784-00	3.3 k-B adjustable; V BIAS
VR601	1-222-784-00	3.3 k-B 1/10 W adjustable; 130 V adj
VR701	1-222-809-00	500 k-B adjustable; SCRN
VR801	1-222-509-00	500 k-B adjustable; H STAT
VR901	1-222-383-00	1 k-B variable; PICTURE
VR902	1-222-388-00	20 k-B variable; VER

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
VR903	1-222-686-00	50 k-D variable; PULL ON/VOL (up to serial No. 10,500)
VR903	1-222-876-00	5 k-D variable; (serial No. 10,501 and later)
VR904	1-222-388-00	20 k-B variable; BRT
VR905	1-222-387-00	3 k-U variable; HUE
VR906	1-222-386-00	500-B variable; COLOR
MISCELLANEOUS		
L406	1-415-042-00	delay line
L901 } L902 } L903 }	1-451-076-00	deflection yoke
	1-452-014-00	magnet, small disk; 15 mm dia
	1-452-032-00	magnet, small disk; 10 mm dia
	1-452-038-00	magnet, vertical convergence
	1-452-058-00	magnet, horizontal convergence
DC801	8-983-835-95	selenium rectifier block ass'y, including
	1-206-915-21	high voltage resistor (R802)
	1-222-509-00	adjustable high voltage resistor (VR801)
	1-502-309-00	speaker
	1-506-108-00	terminal pin, SV
	1-506-343-00	connector, 8 pin
J64 ~ J66 J901, 902)	1-507-169-13	jack, earphone and audio input/output
	1-507-901-12	nut, earphone jack
	1-508-451-00	socket, 11 pin connector
	1-509-095-00	connector, 8 pin; VTR
J61 ~ J63	1-509-158-13	coaxial connector, video input/output

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
	1-509-420-00	connector, 11 pin
	1-509-500-00	socket, 8 pin connector
	1-513-217-22	slide switch, 75-ohm terminator
	1-514-897-00	switch, push (AFT)
S902	1-515-119-00	circuit breaker
	1-516-127-00	switch, push; TV/VTR/LINE
SG701 } SG705 }	1-519-063-00	spark gap, 1.5 kV
NE902	1-519-082-00	neon lamp ass'y
	1-526-086-00	socket, picture tube
	1-526-130-61	anode cap, high voltage
	1-526-131-52	convergence cap, high voltage
	1-526-144-12	rubber, flyback transformer
X301	1-527-154-00	crystal, 3.58 MHz
F51	1-532-115-00	fuse, 0.8 A
F601	1-532-213-00	fuse, 4 A
	1-534-517-00	cord, power supply
	1-534-630-14	phono plug with cable
	1-534-764-00	feeder, with connector
	1-534-793-00	phono plug with cable
	1-536-179-00	terminal lug, 1L1
	1-536-296-00	terminal lug, 1L2L1
	1-536-314-00	antenna terminal board ass'y
	1-536-386-00	terminal lug, 1L1
	1-543-040-00	core
NE901	1-519-091-00	neon lamp ass'y, AC 120V
NE903	1-519-093-00	neon lamp ass'y
NE904	1-519-092-00	neon lamp ass'y, DC 130V
	1-534-793-00	pin lead
	8-735-300-00	picture tube (330AB22)

Sony Corporation
TV and Consumer Video Group

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